

FIG. 1A
(Prior Art)

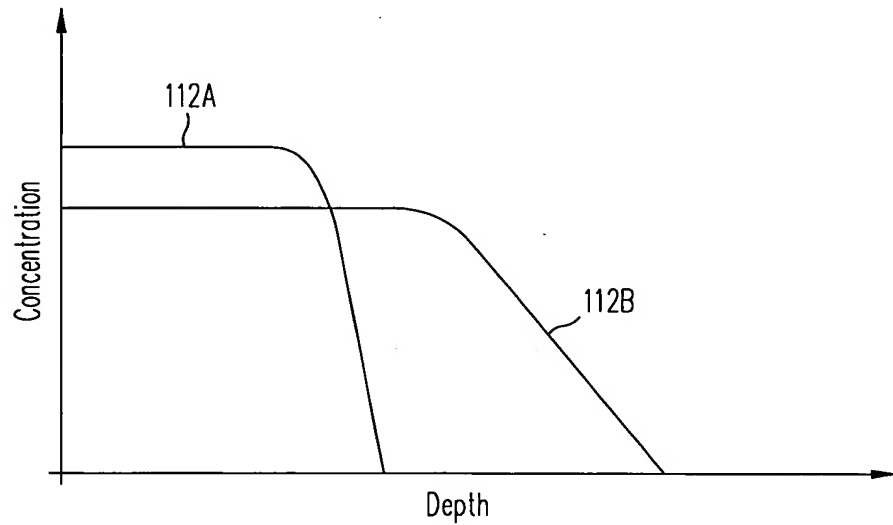


FIG. 1B
(Prior Art)

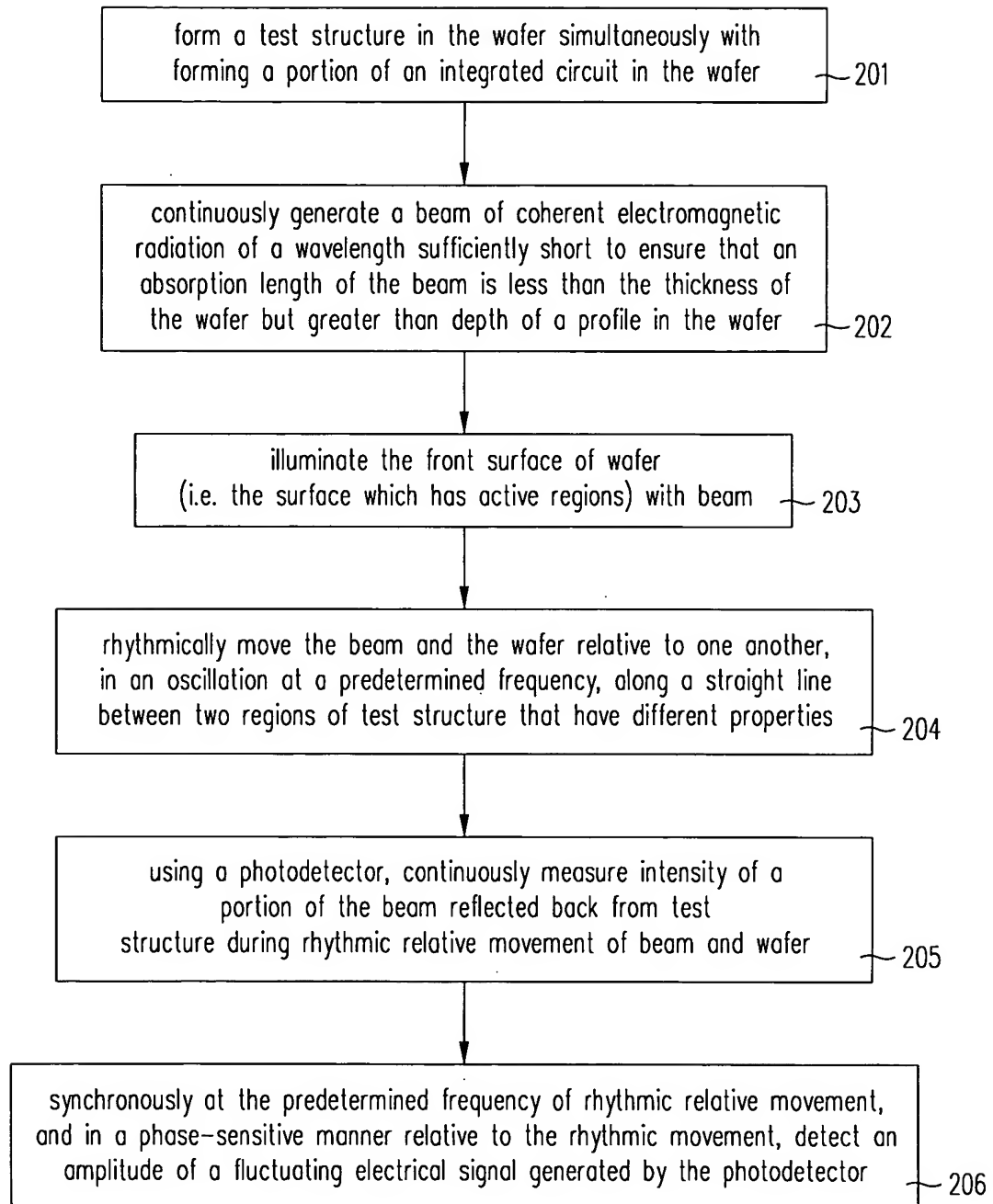


FIG. 2A

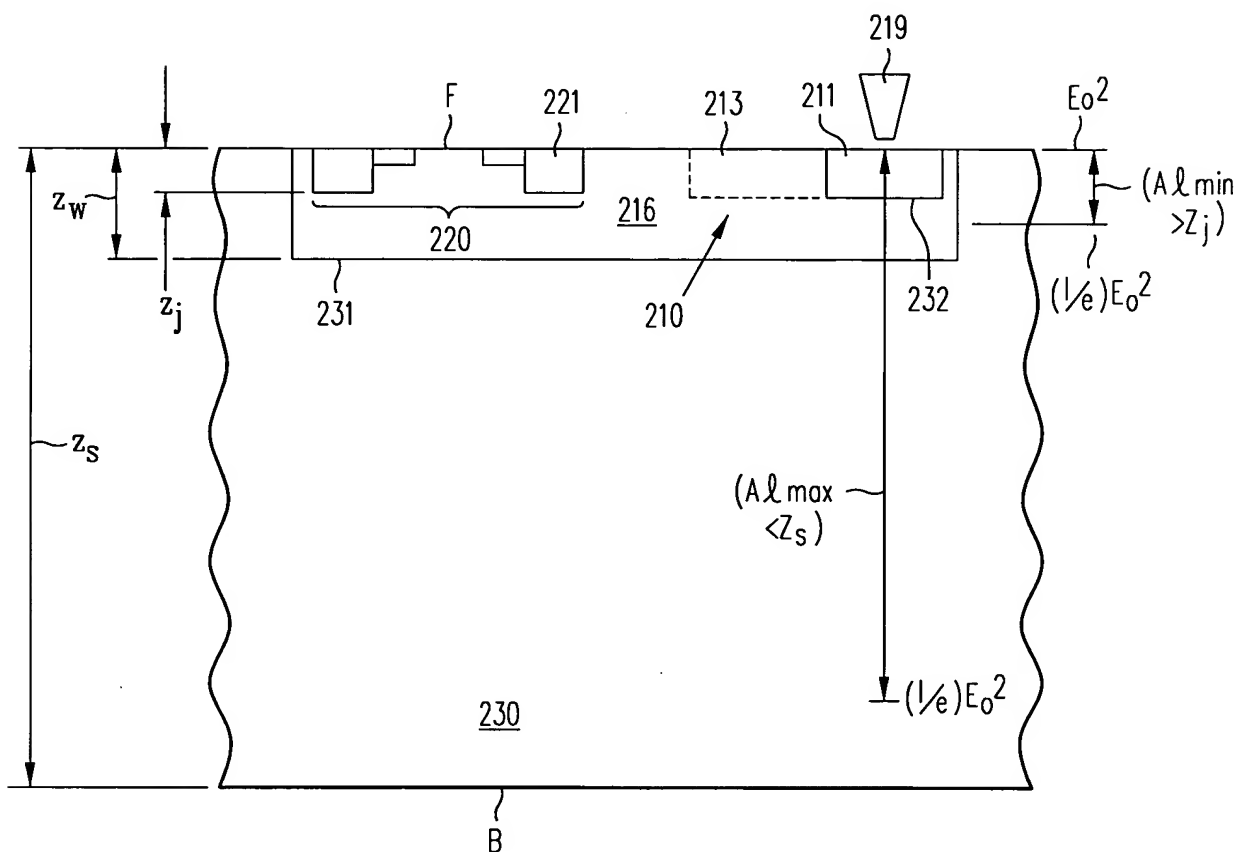


FIG. 2B

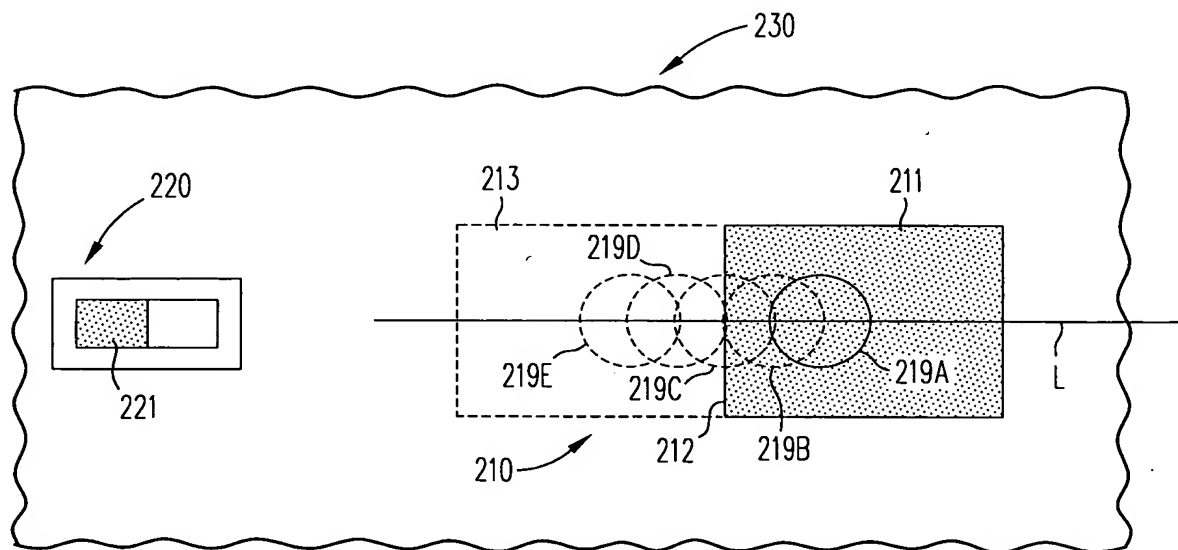
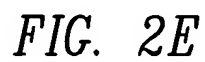
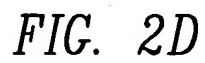


FIG. 2C



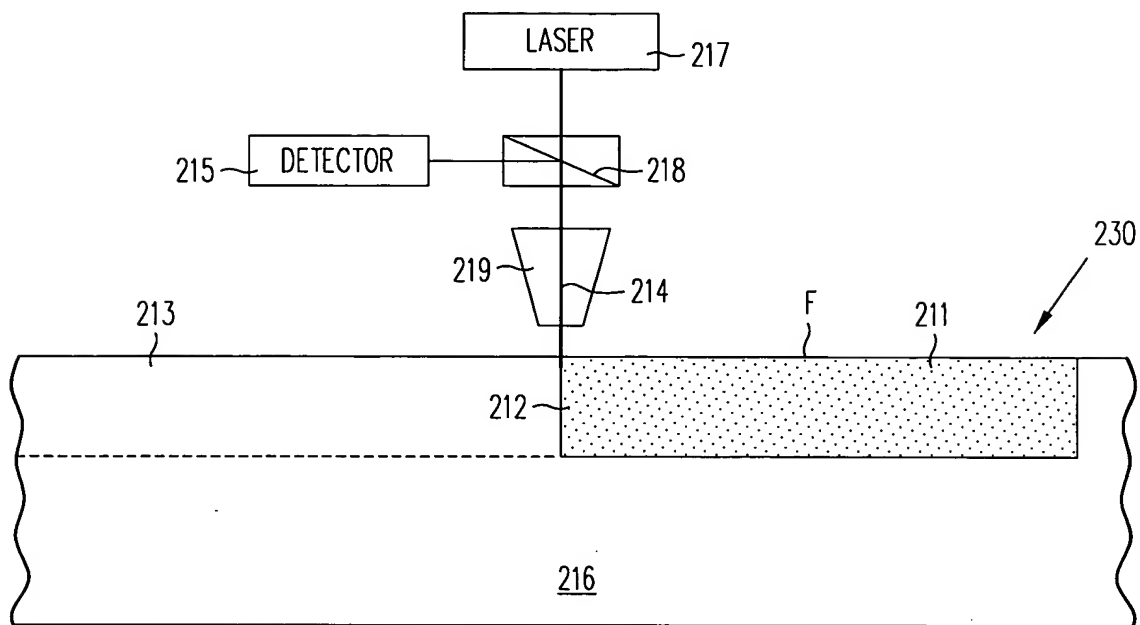


FIG. 2F

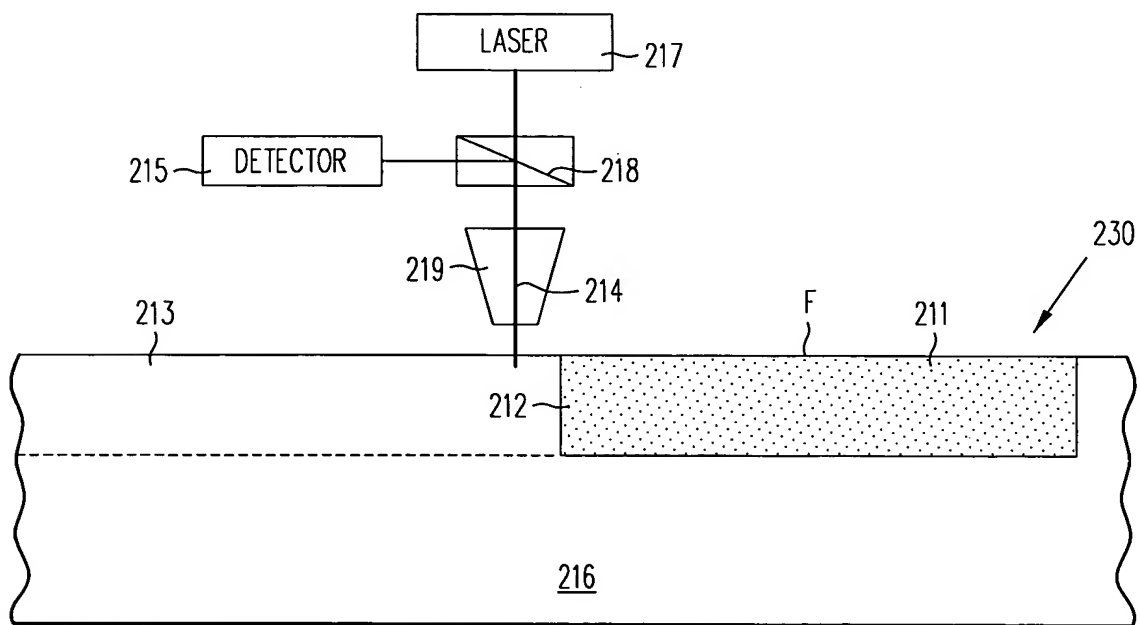


FIG. 2G

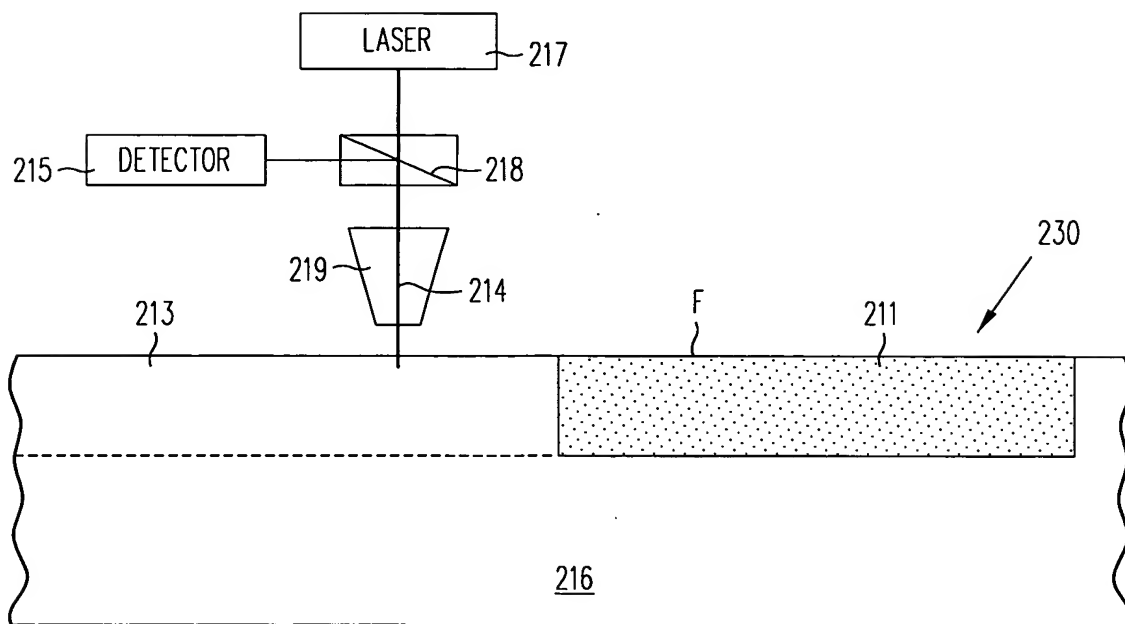


FIG. 2H

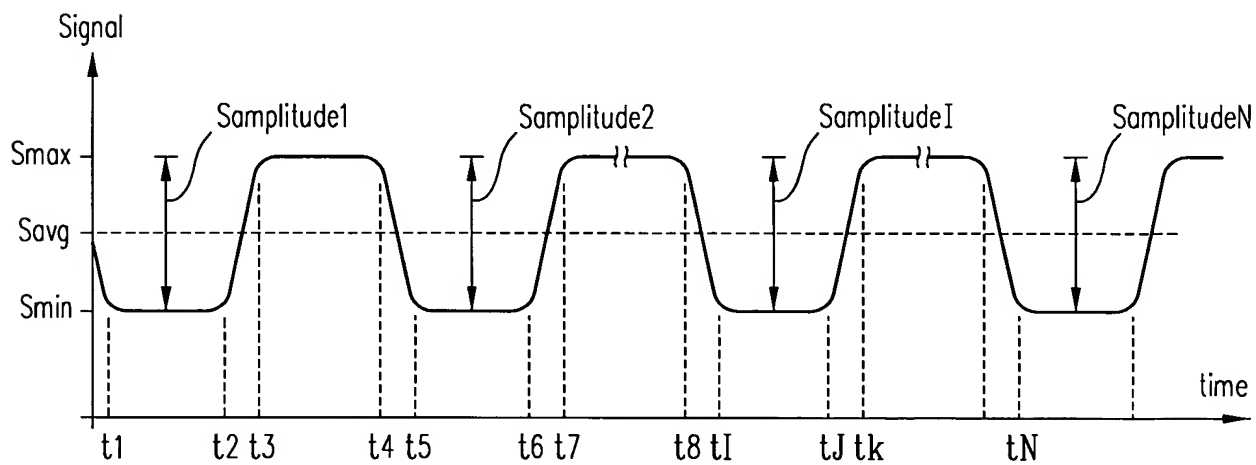


FIG. 2I

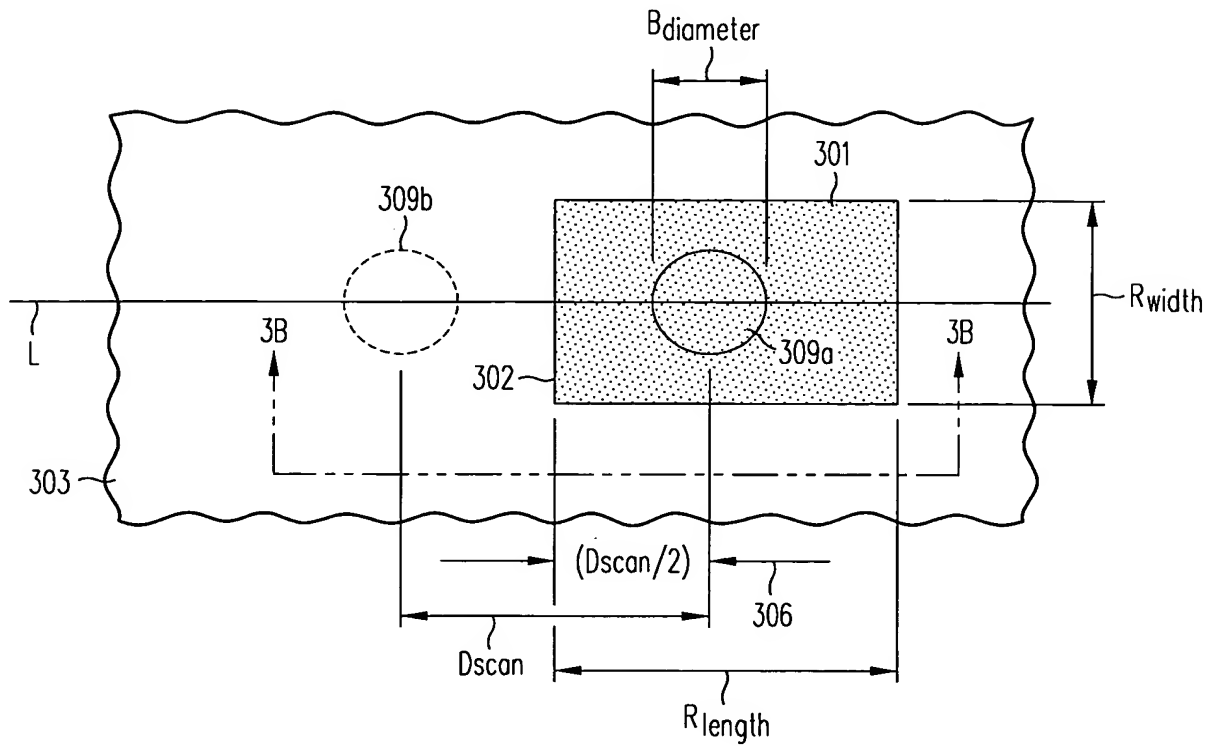


FIG. 3A

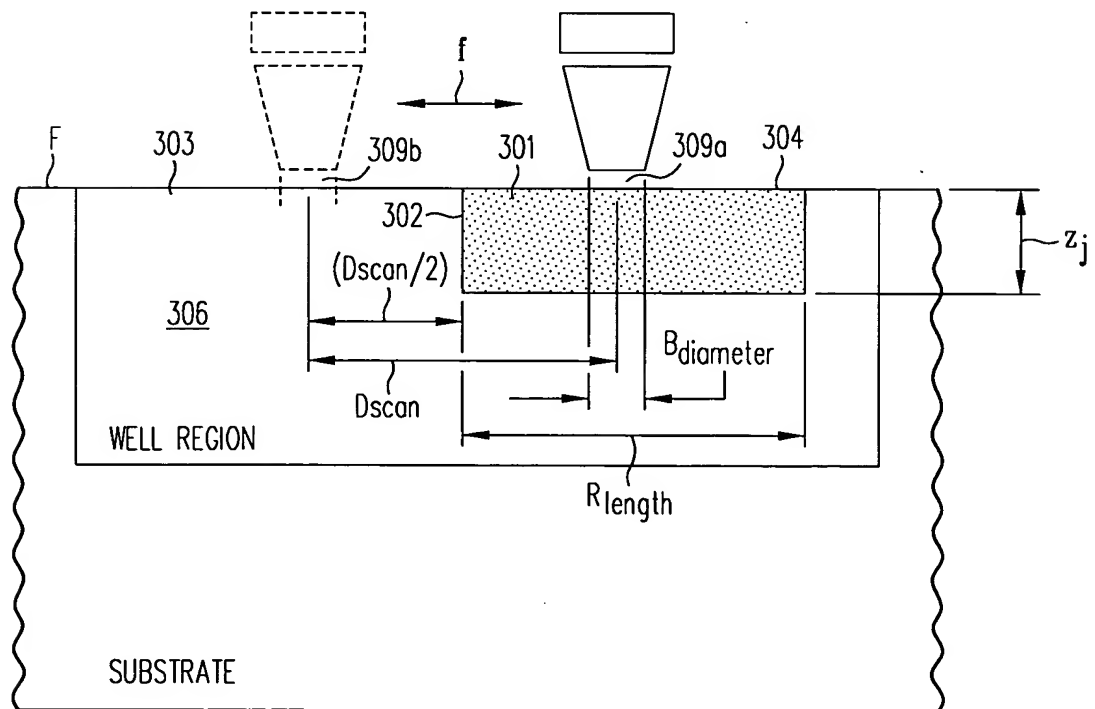


FIG. 3B

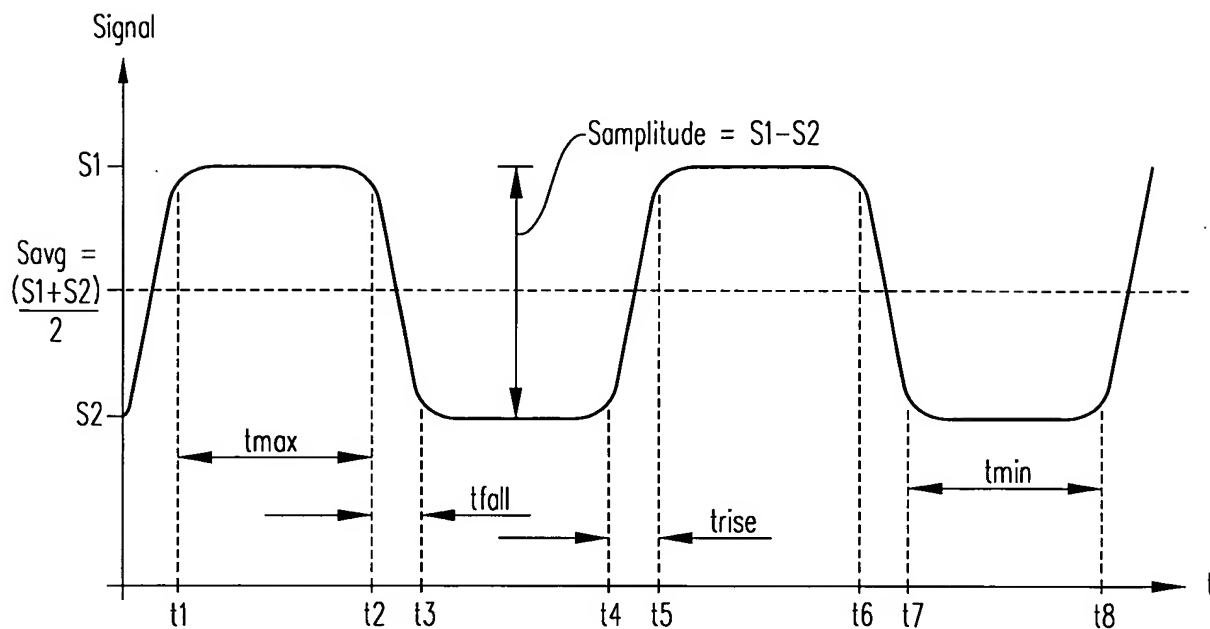


FIG. 3C

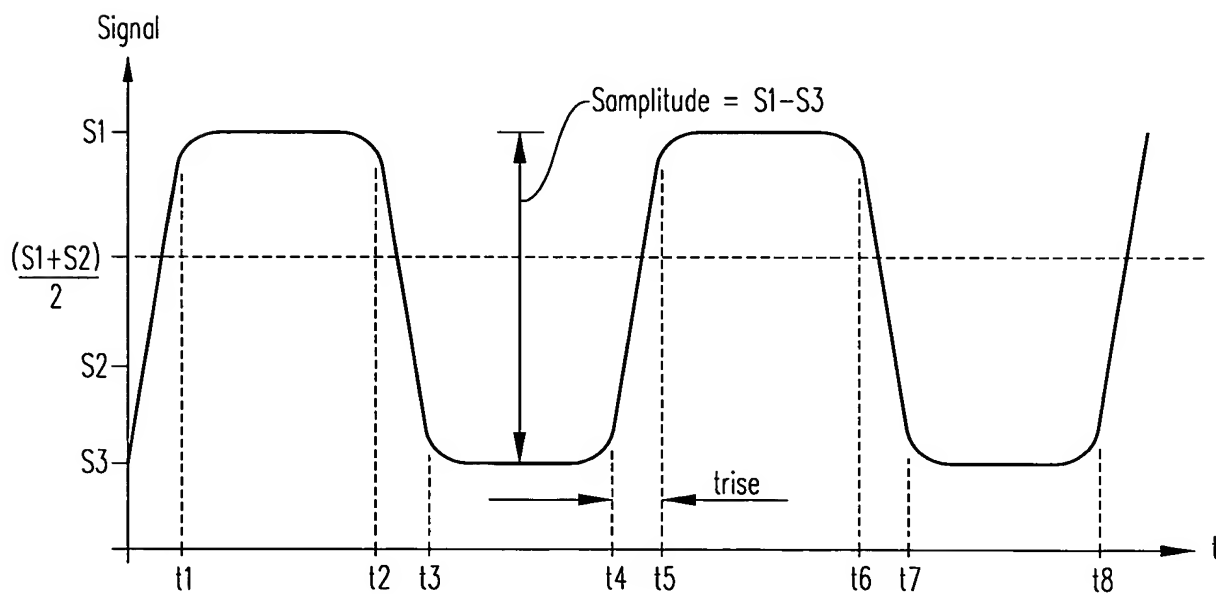


FIG. 3D

10/40

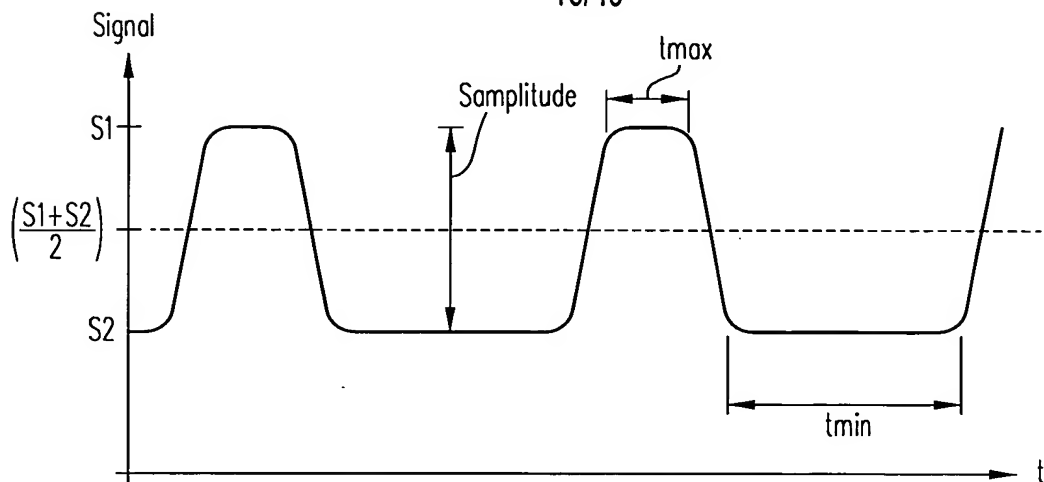


FIG. 3E

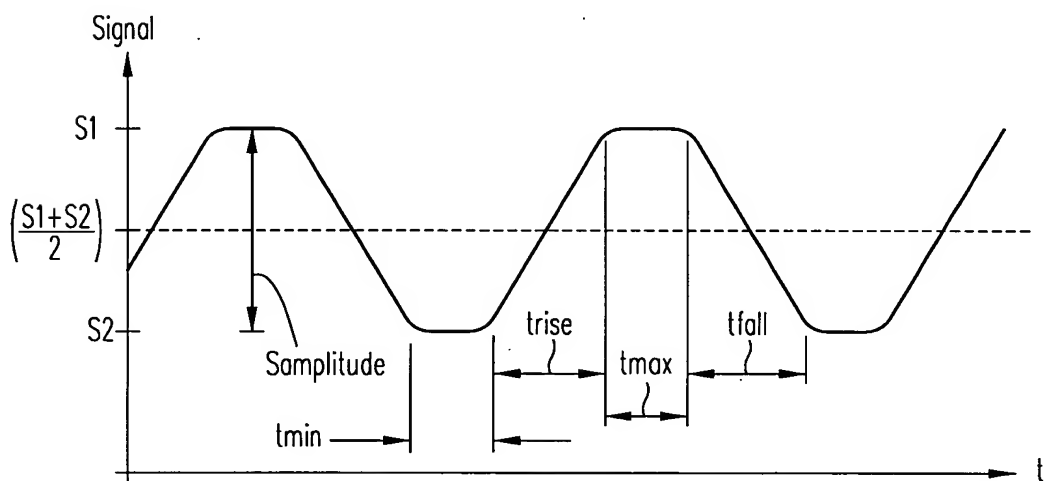


FIG. 3F

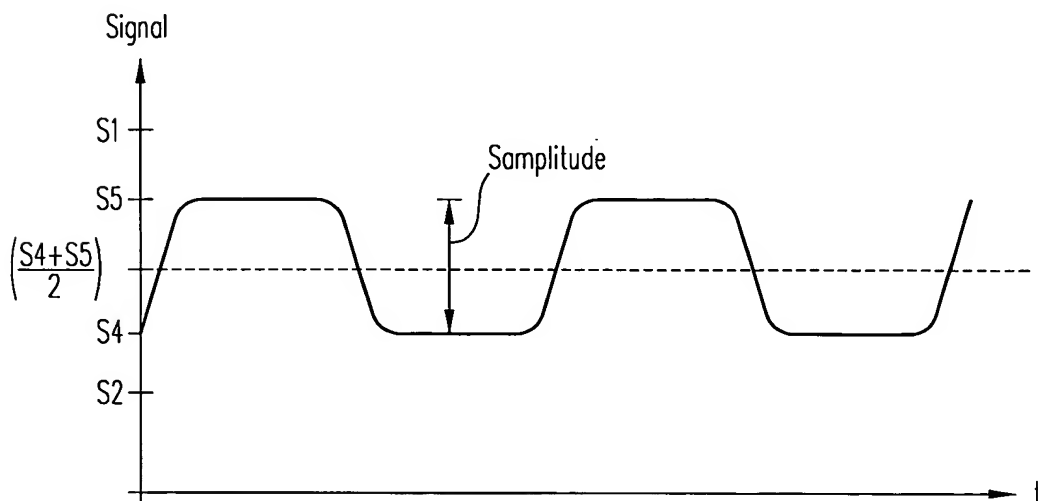


FIG. 3G

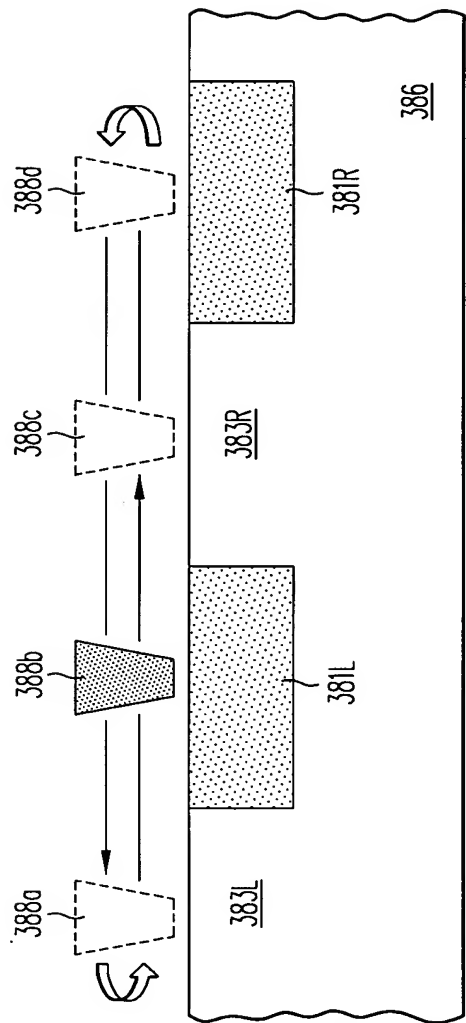


FIG. 3H

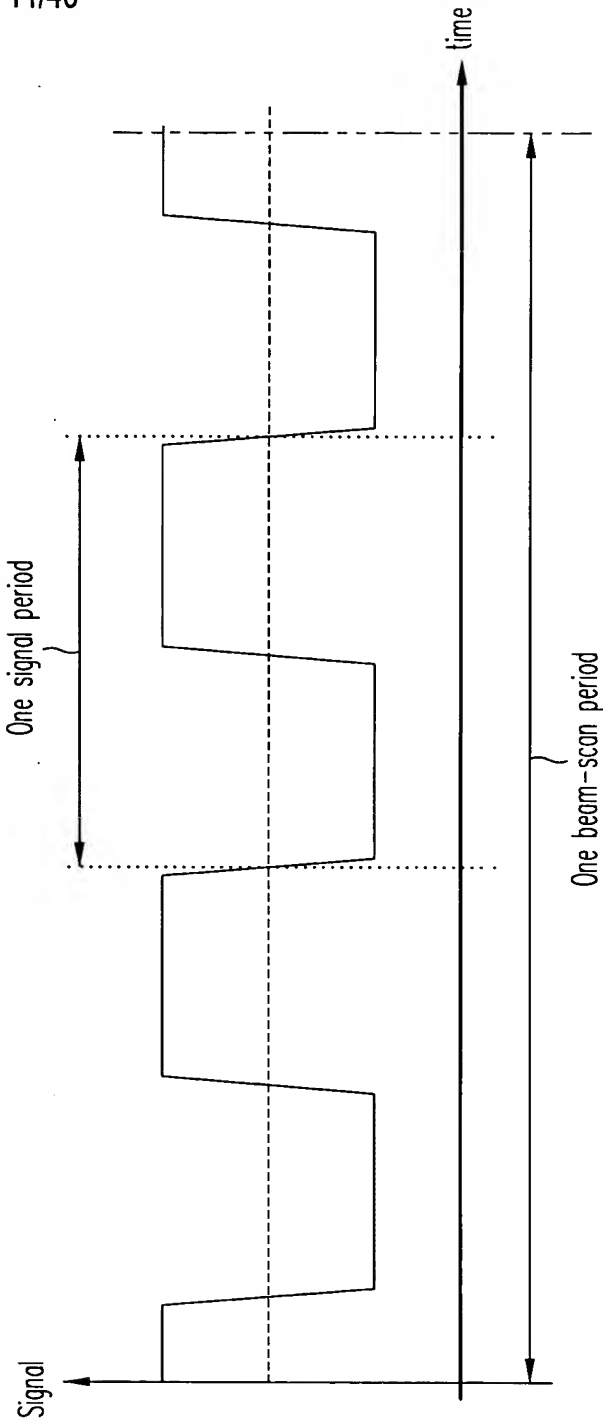


FIG. 3I

12/40

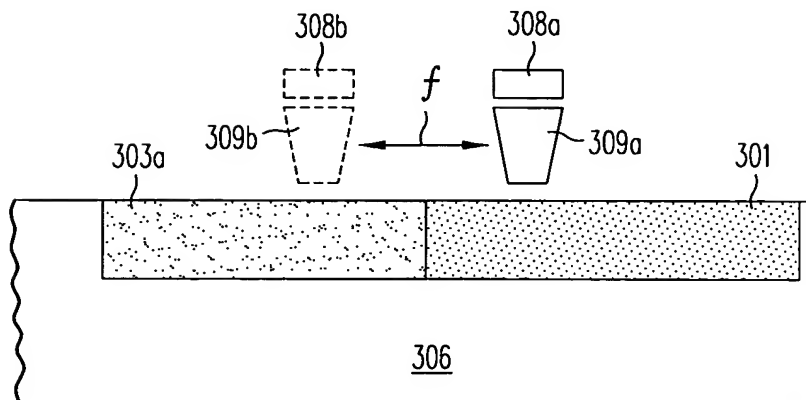


FIG. 3J

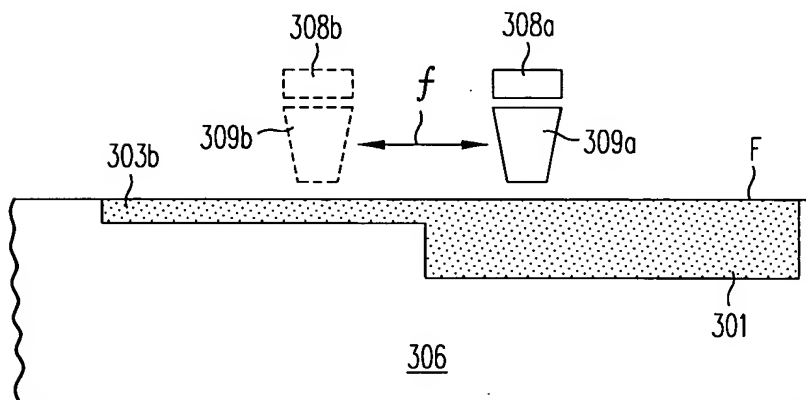


FIG. 3K

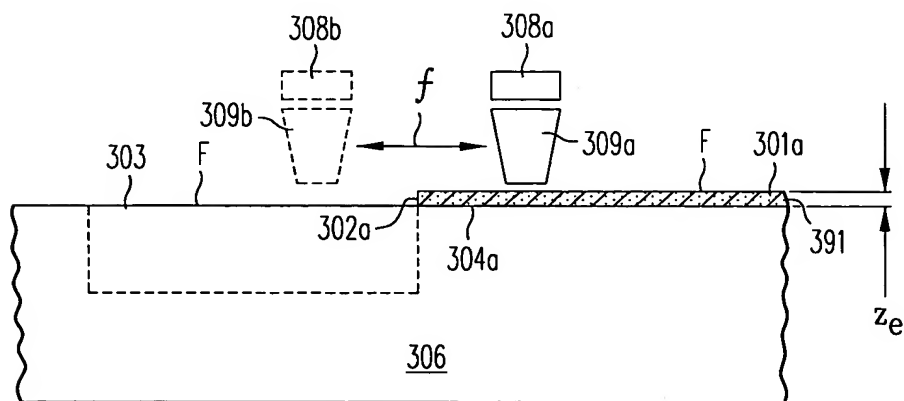


FIG. 3L

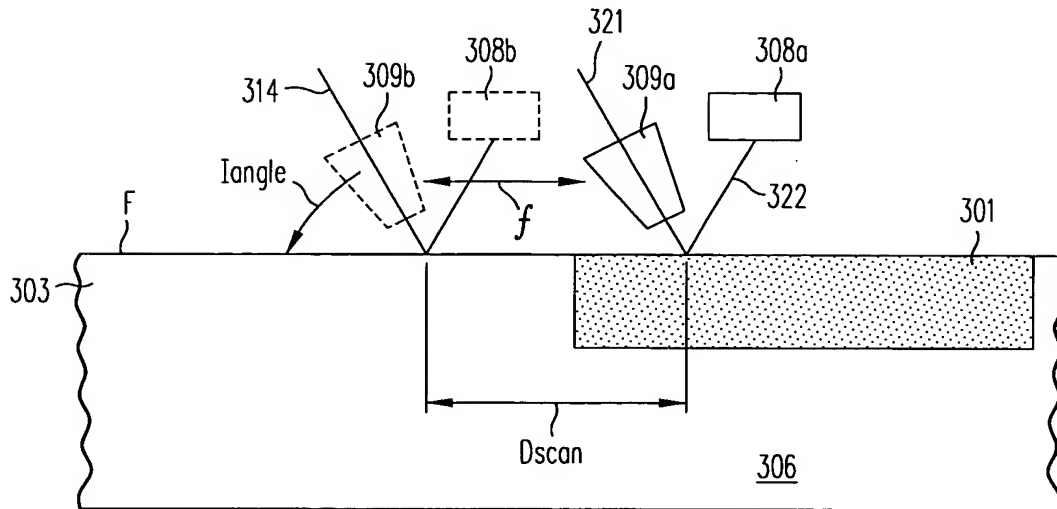


FIG. 3M

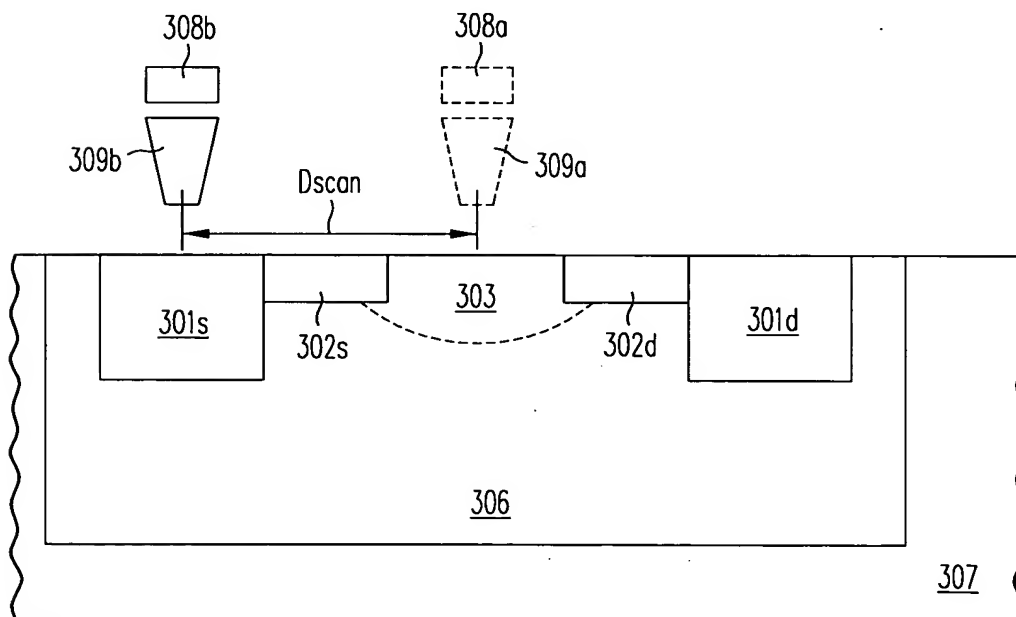
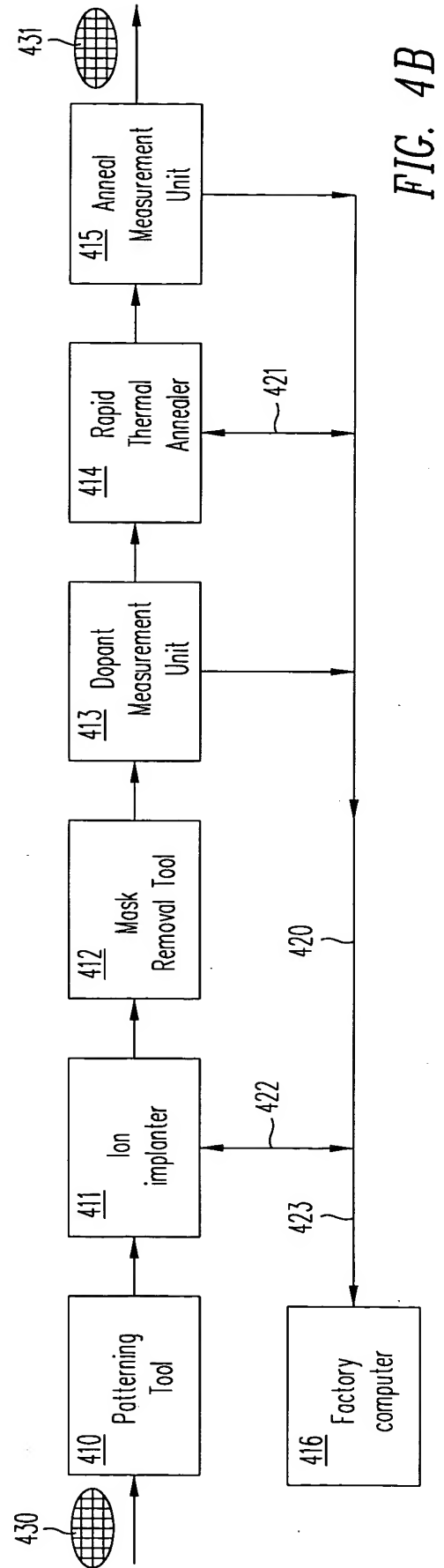
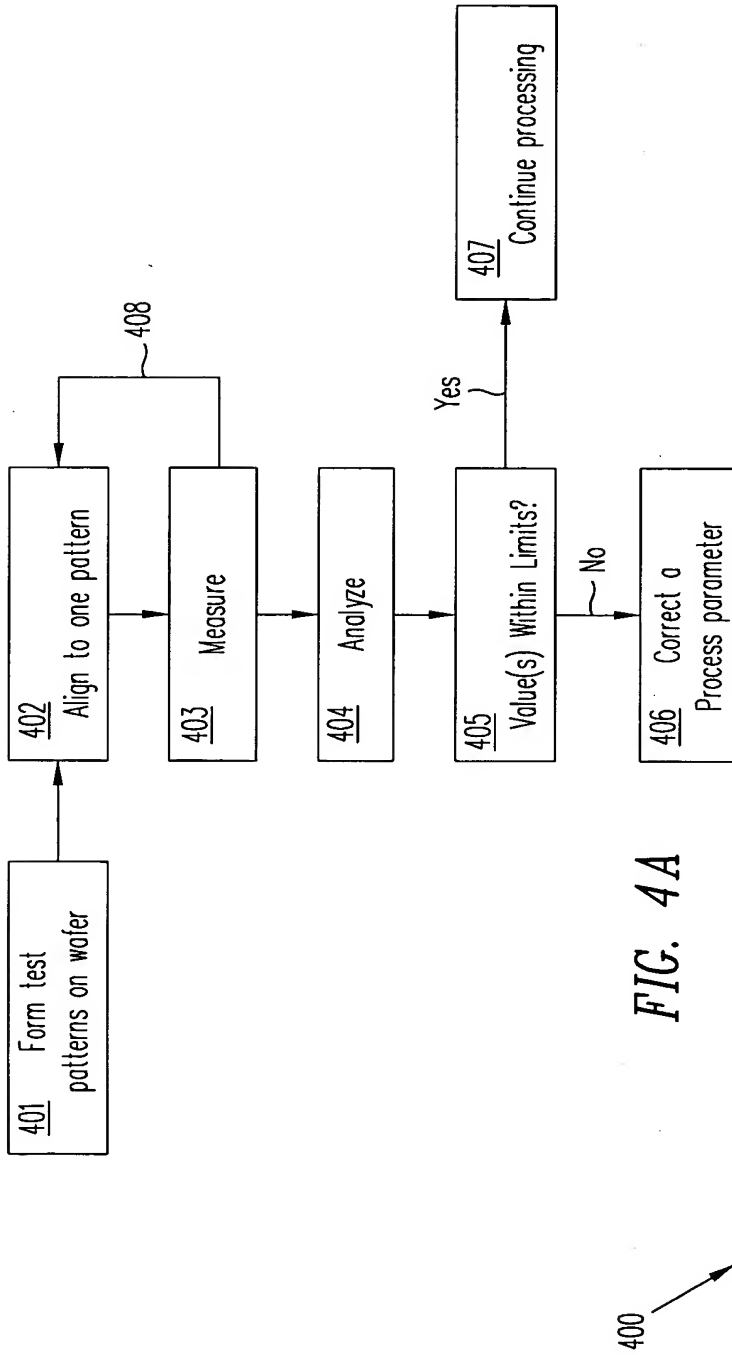


FIG. 3N

14/40



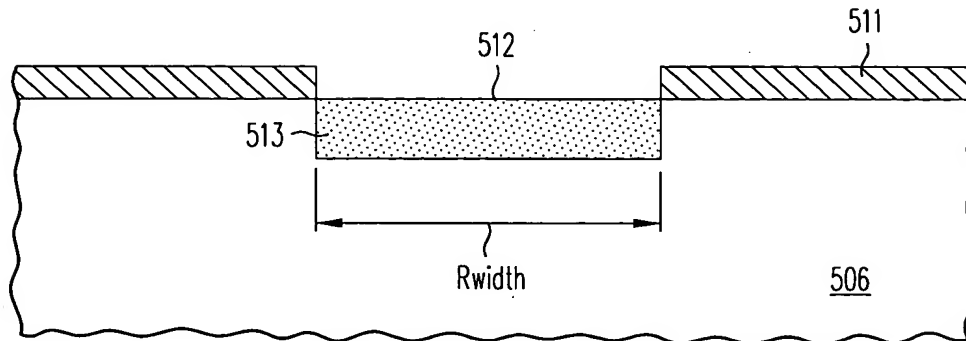


FIG. 5A

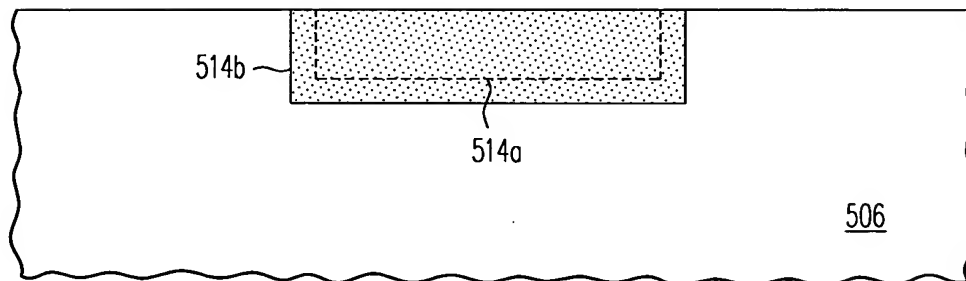


FIG. 5B

16/40

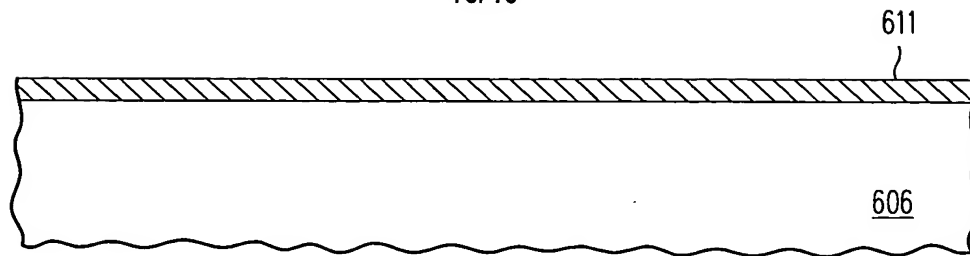


FIG. 6A

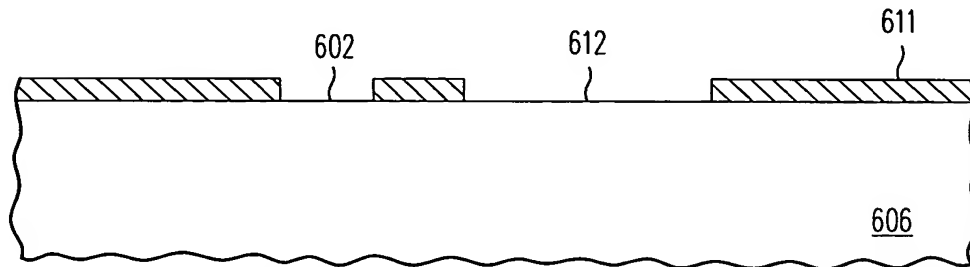


FIG. 6B

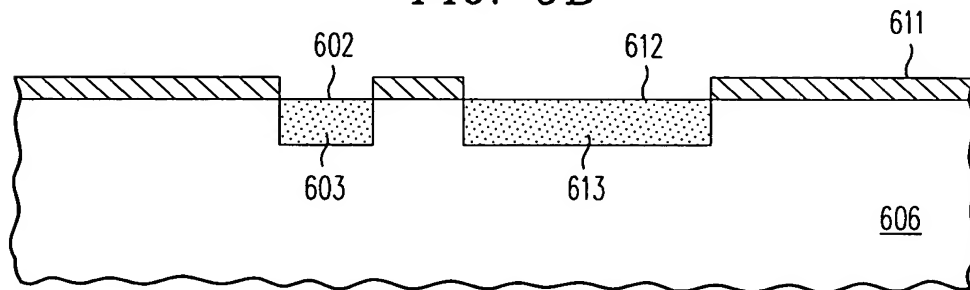


FIG. 6C

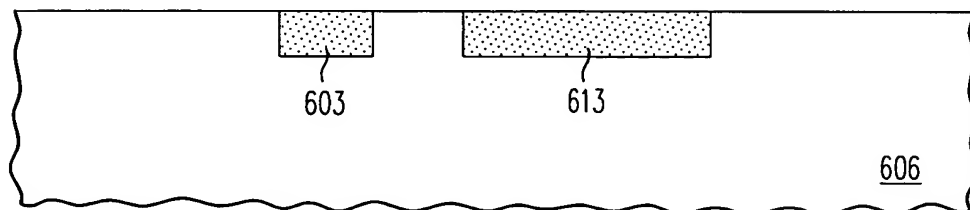


FIG. 6D

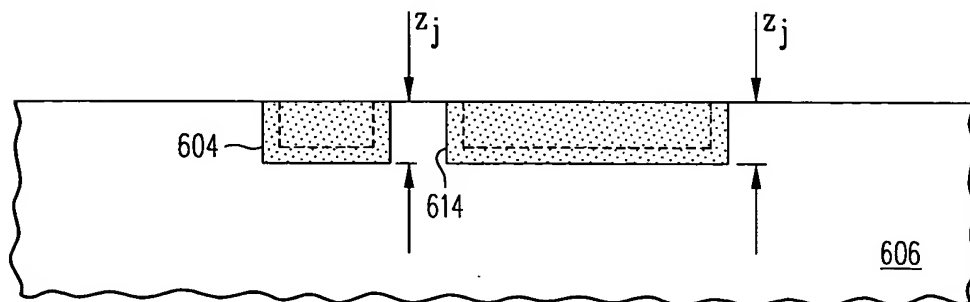


FIG. 6E



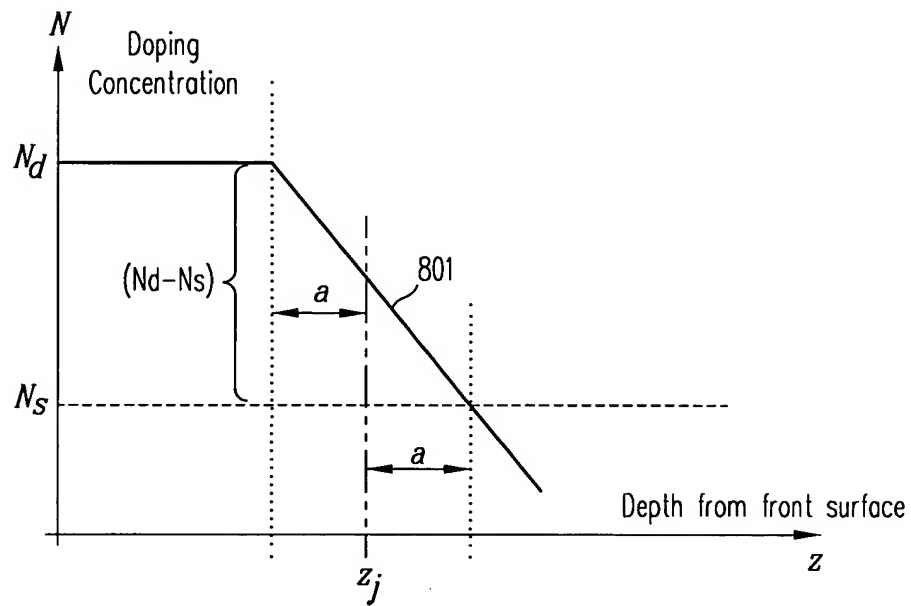


FIG. 8A

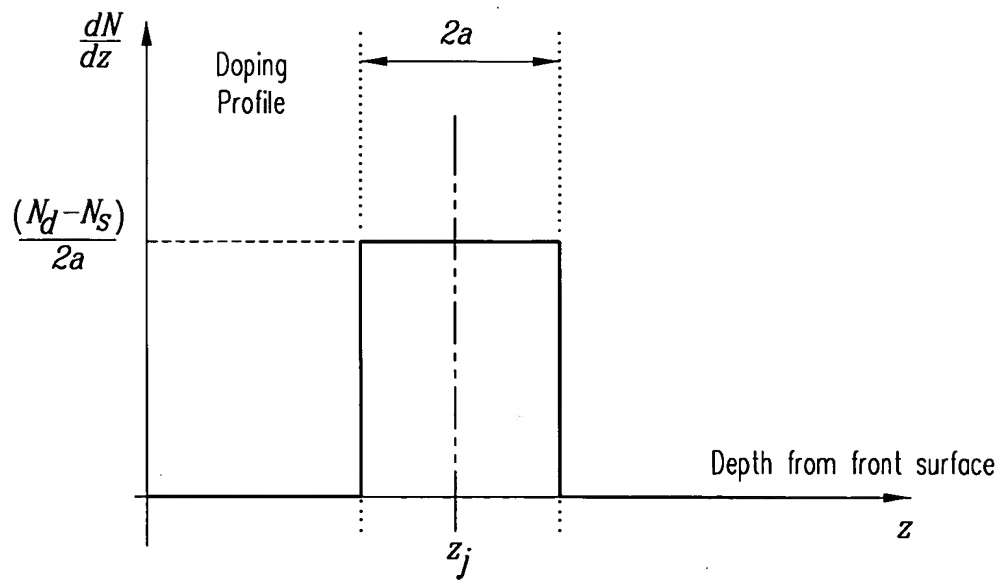


FIG. 8B

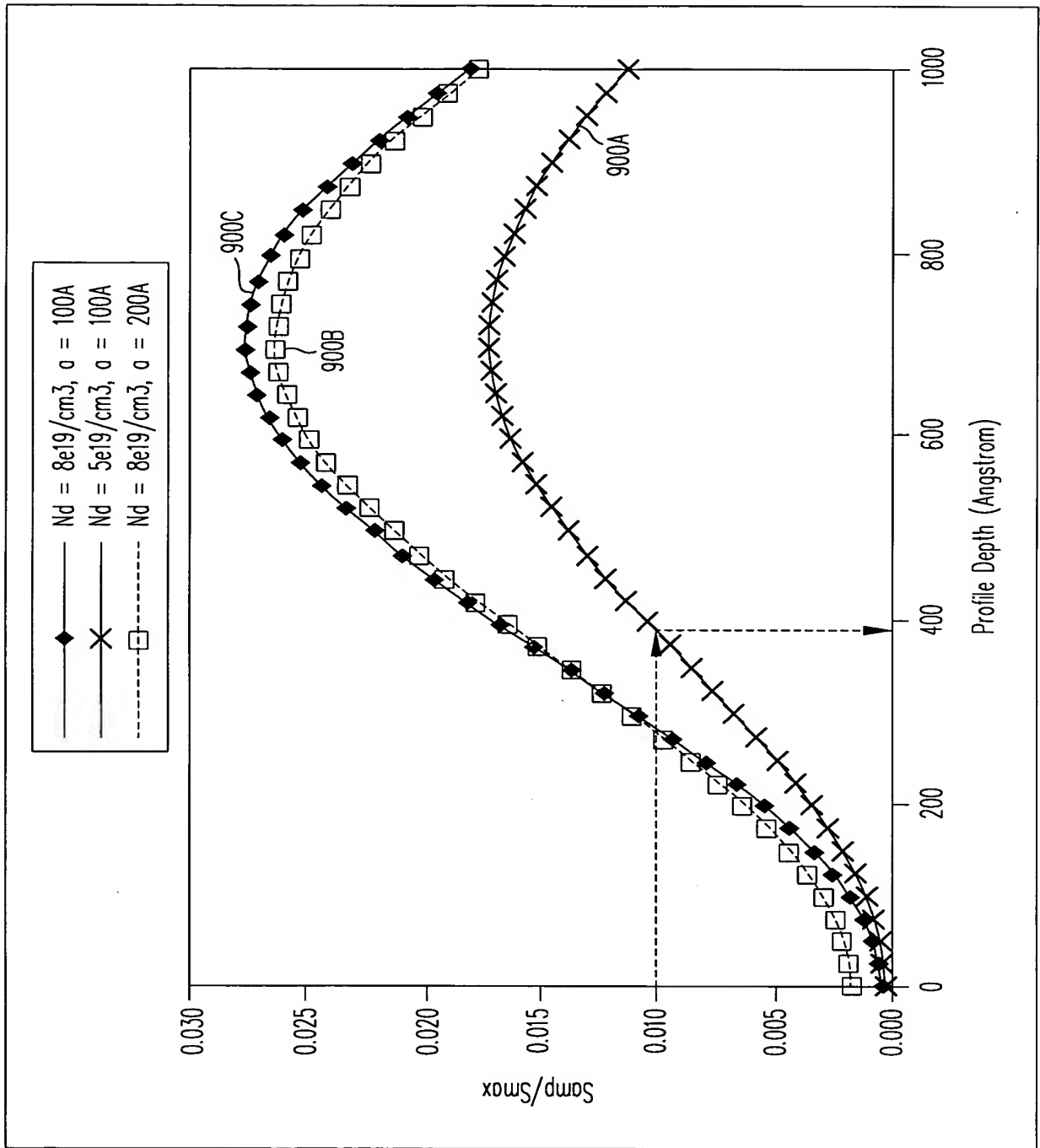


FIG. 9A

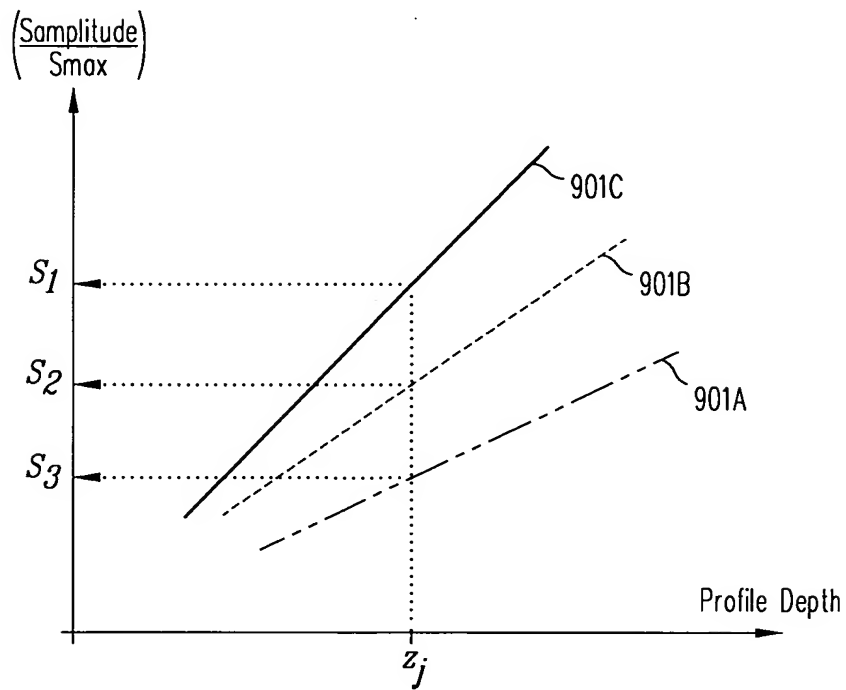


FIG. 9B

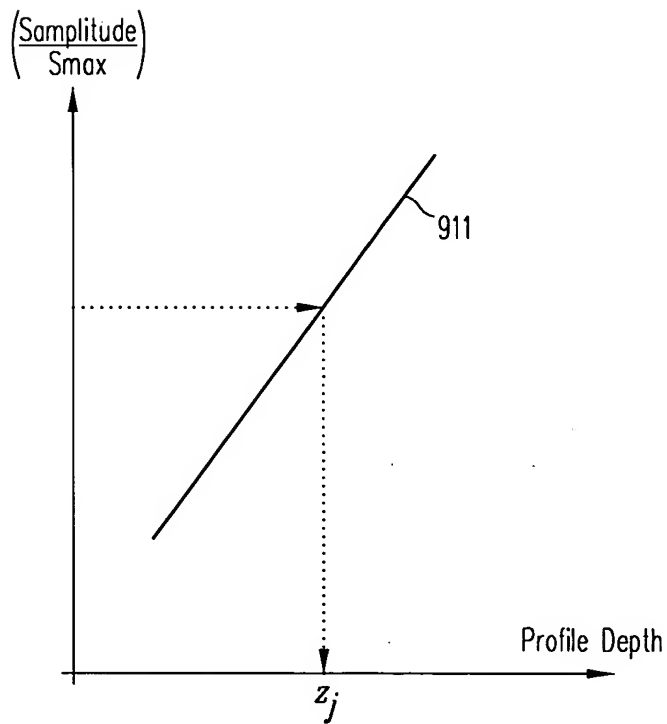
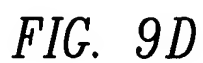


FIG. 9C



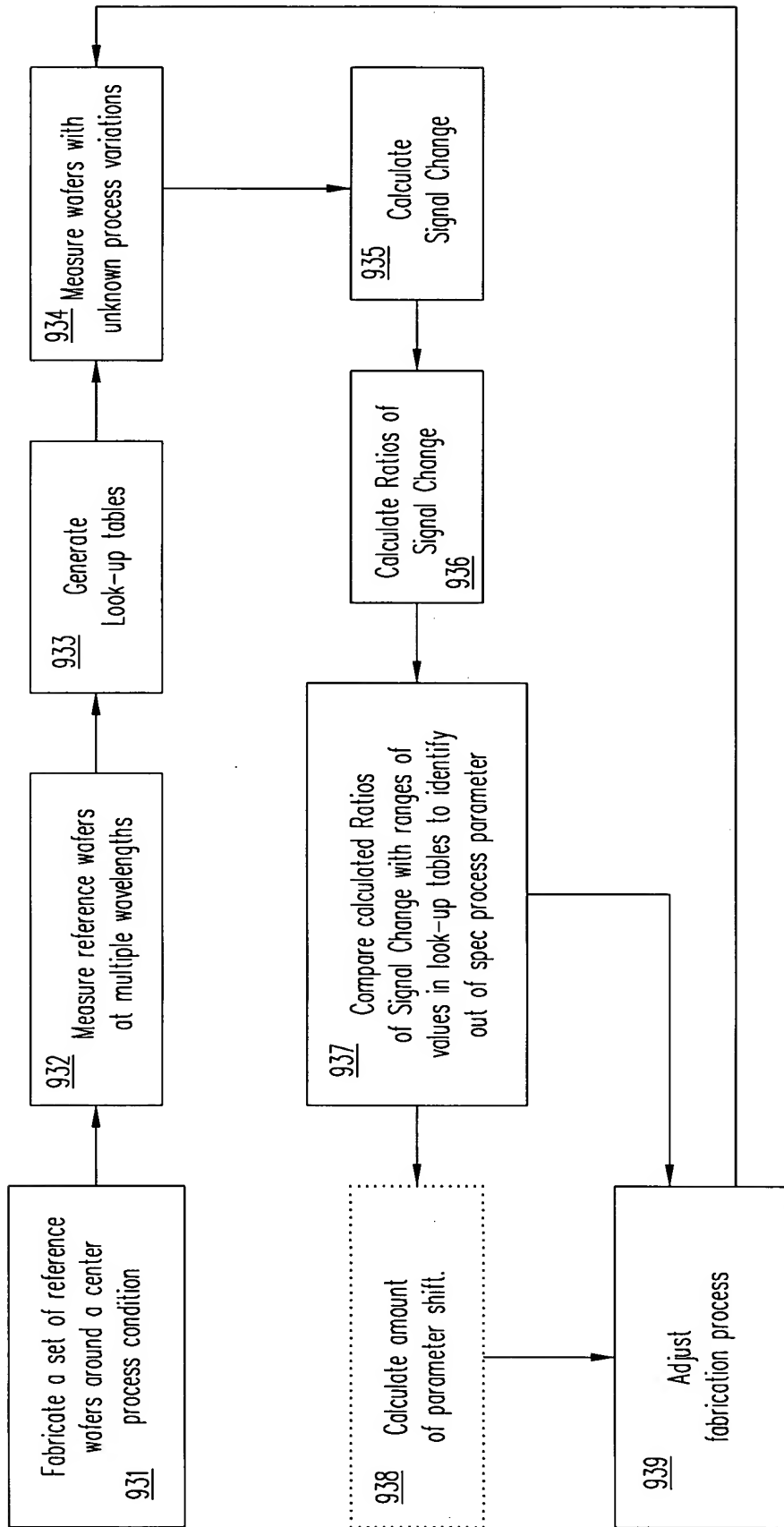


FIG. 9E

23/40

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Normal

$N_s := 3 \cdot 10^{18}$
 $k(\lambda) := 2 \cdot \frac{\pi}{\lambda}$
 $\theta(\lambda) := 2 \cdot \pi \cdot \frac{c}{(\lambda \cdot 10^{-8})}$

$\text{beta}(\lambda) := \frac{(-q^2 \cdot 10^6)}{2 \cdot [e_0 \cdot \sqrt{e_S \cdot m_e} \cdot (\theta(\lambda))^2]}$
 $\text{sinc}(a, \lambda) := \frac{\sin(2 \cdot k(\lambda) \cdot n \cdot a)}{2 \cdot k(\lambda) \cdot n \cdot a}$

$S(N_d, \lambda, z, a) := \left[4 \cdot \text{beta}(\lambda) \cdot \frac{(1 - n)}{(1 + n)^3} \right] \cdot (N_d - N_s) \cdot (1 - \text{sinc}(a, \lambda) \cdot \cos(2 \cdot k(\lambda) \cdot n \cdot z))$

$N_d := 10^{20}$
 $z := 300$
 $a := 150$

Given

$S(N_d, 9800, z, a) = 5.019 \cdot 10^{-3}$
 $S(N_d, 8300, z, a) = 4.404 \cdot 10^{-3}$
 $S(N_d, 7300, z, a) = 3.836 \cdot 10^{-3}$

Find(Nd, z, a) =

$\begin{bmatrix} 8.028 \times 10^{19} \\ 3.99 \times 10^2 \\ 1.027 \times 10^2 \end{bmatrix}$

Press F1 for help

AUTO NUM Page 6

FIG. 10A

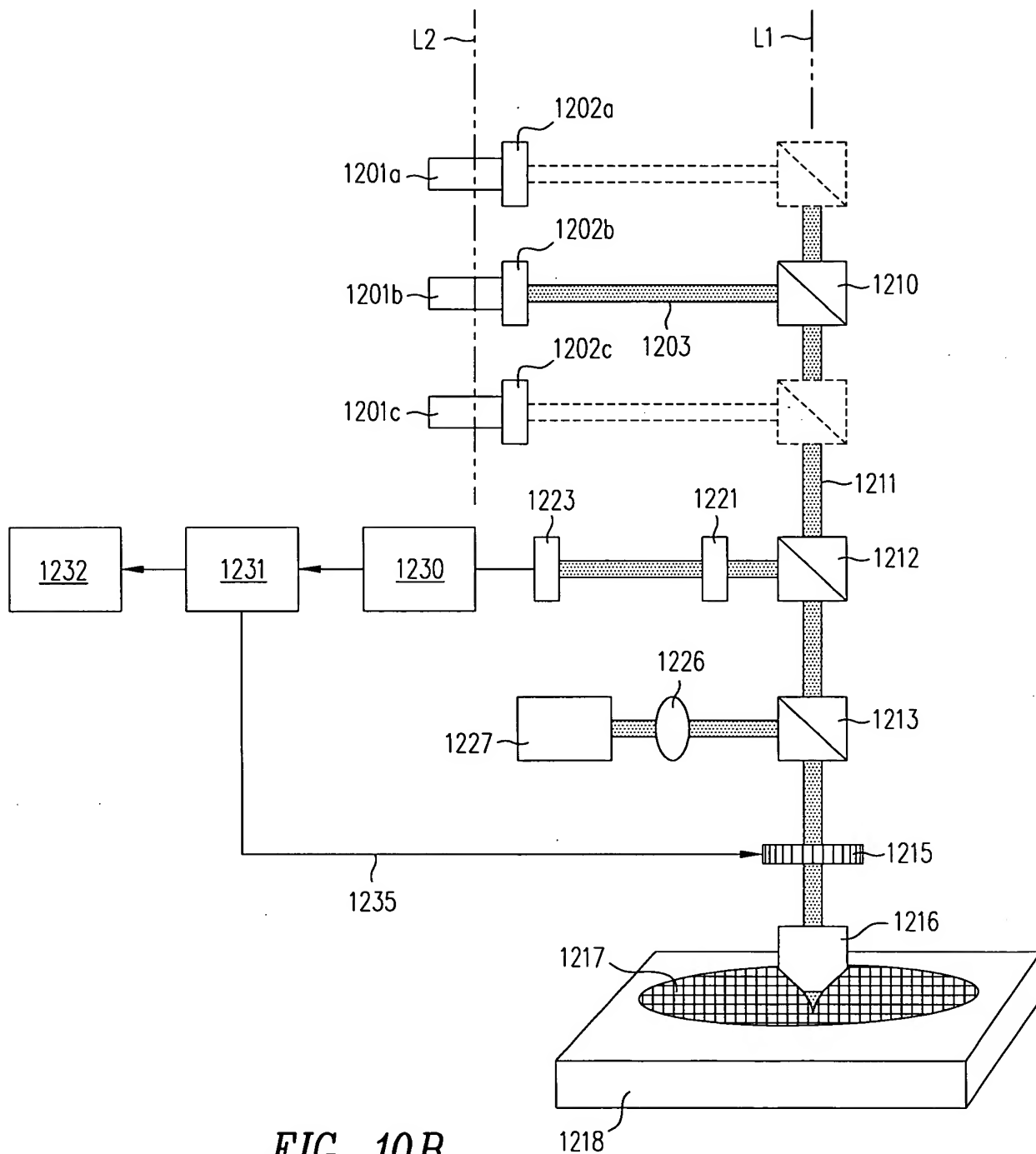
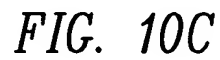


FIG. 10B



26/40

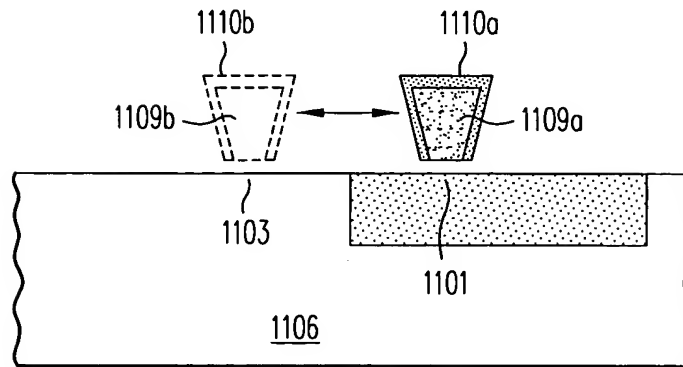


FIG. 11A

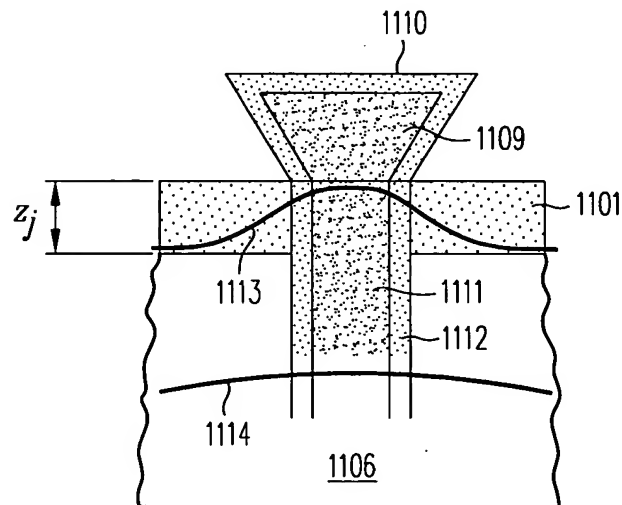


FIG. 11B

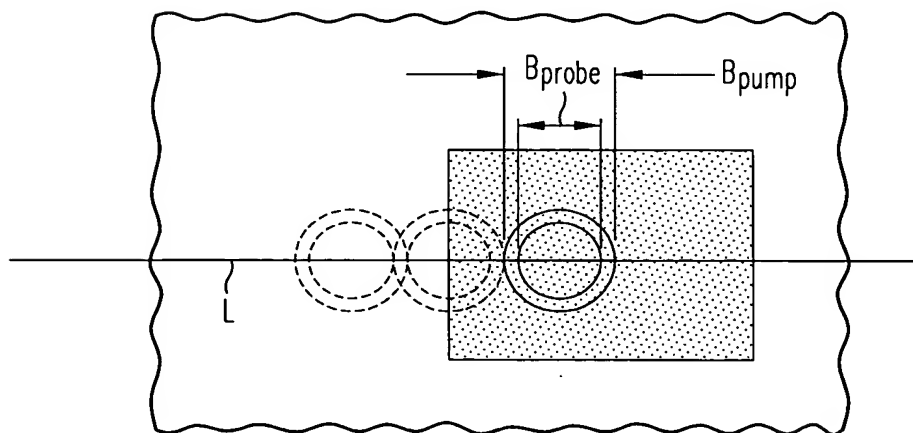


FIG. 11C

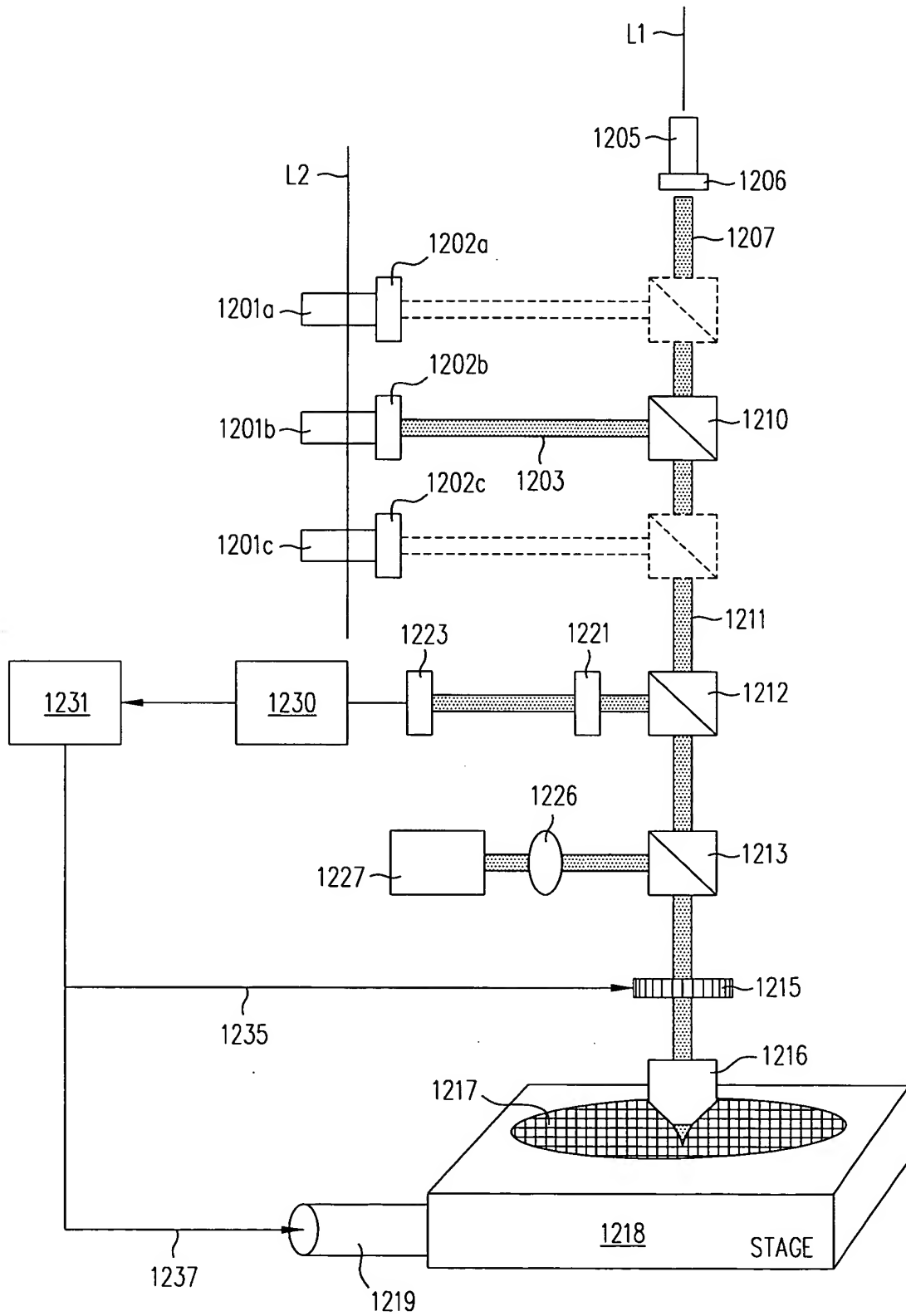


FIG. 12

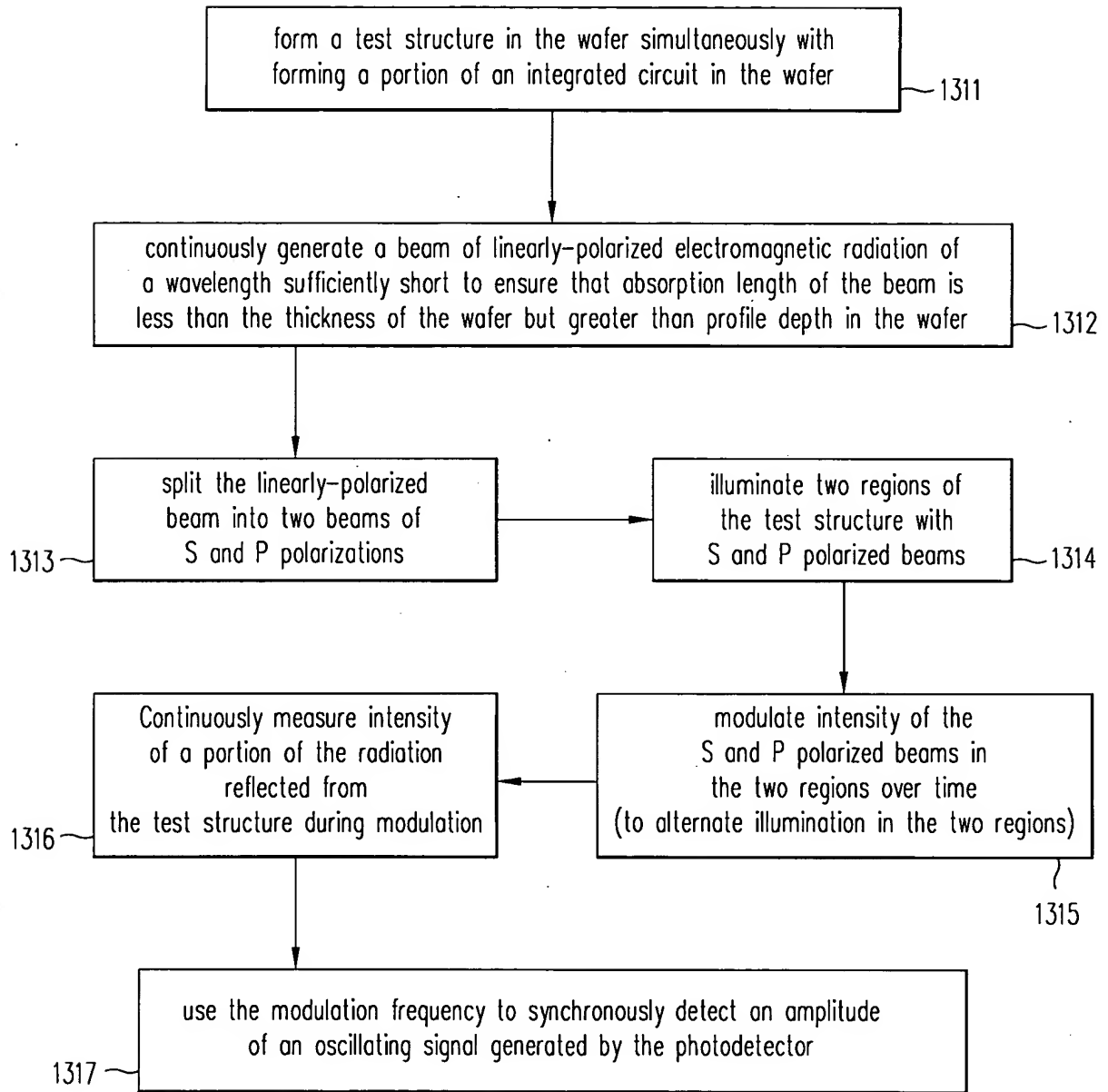


FIG. 13A

29/40

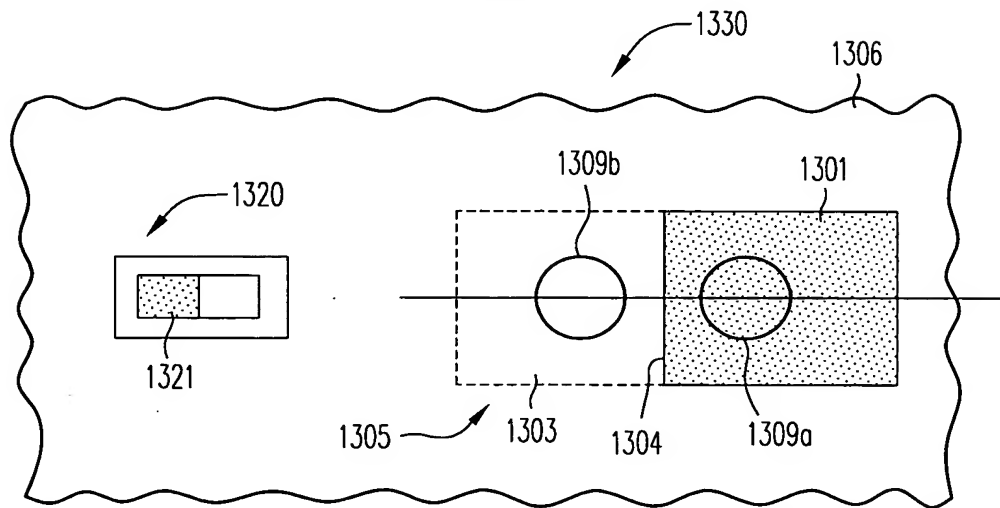


FIG. 13B

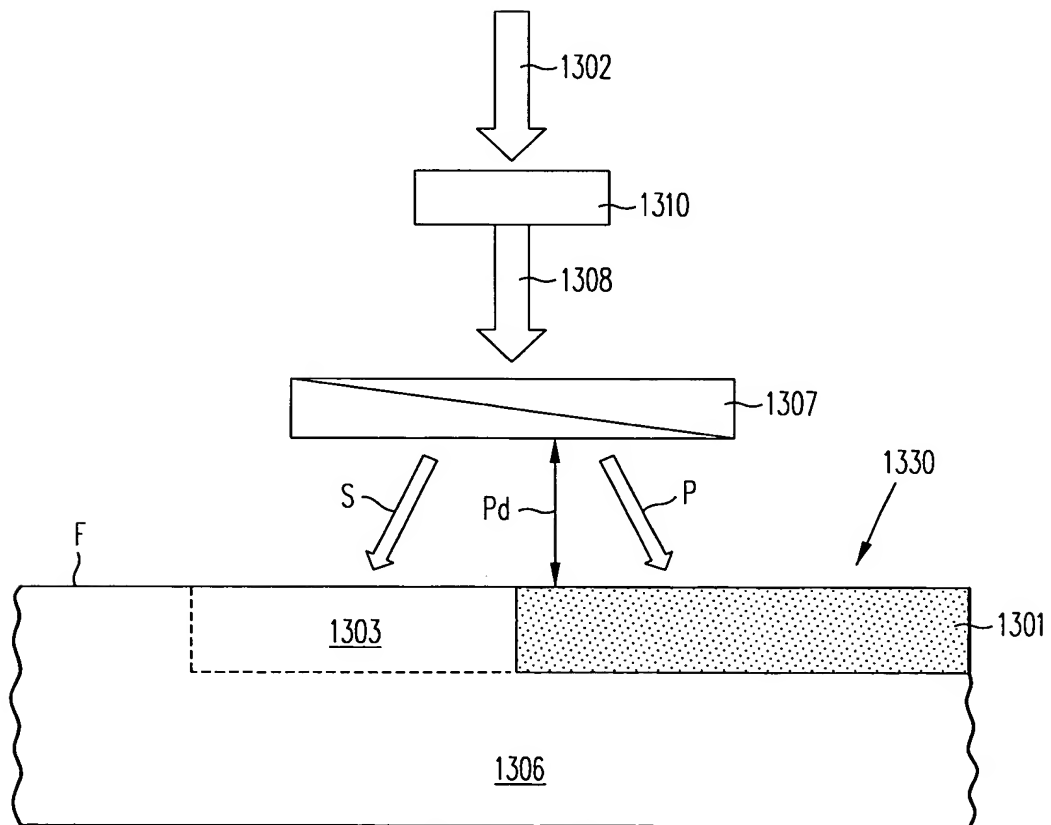
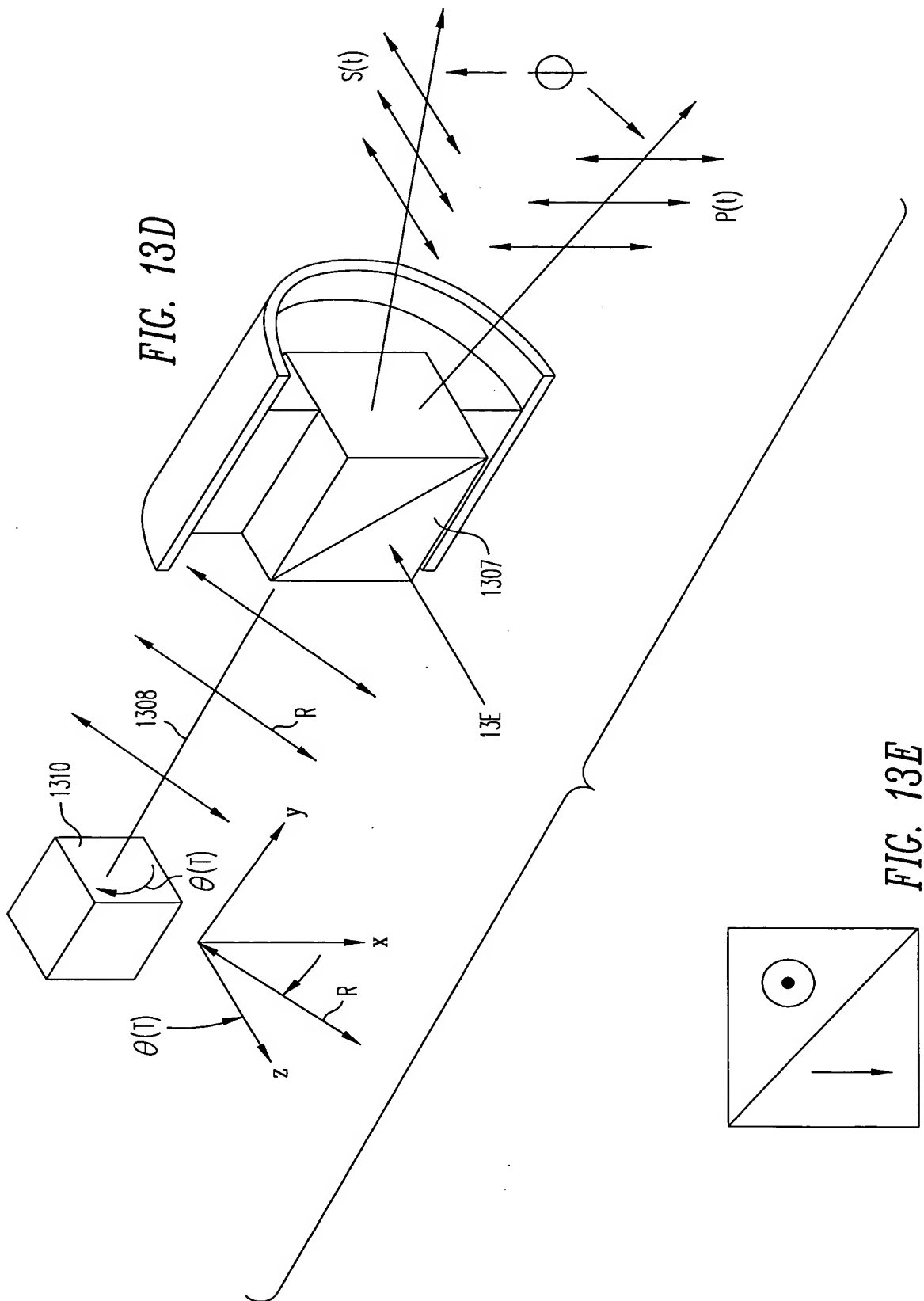


FIG. 13C



31/40

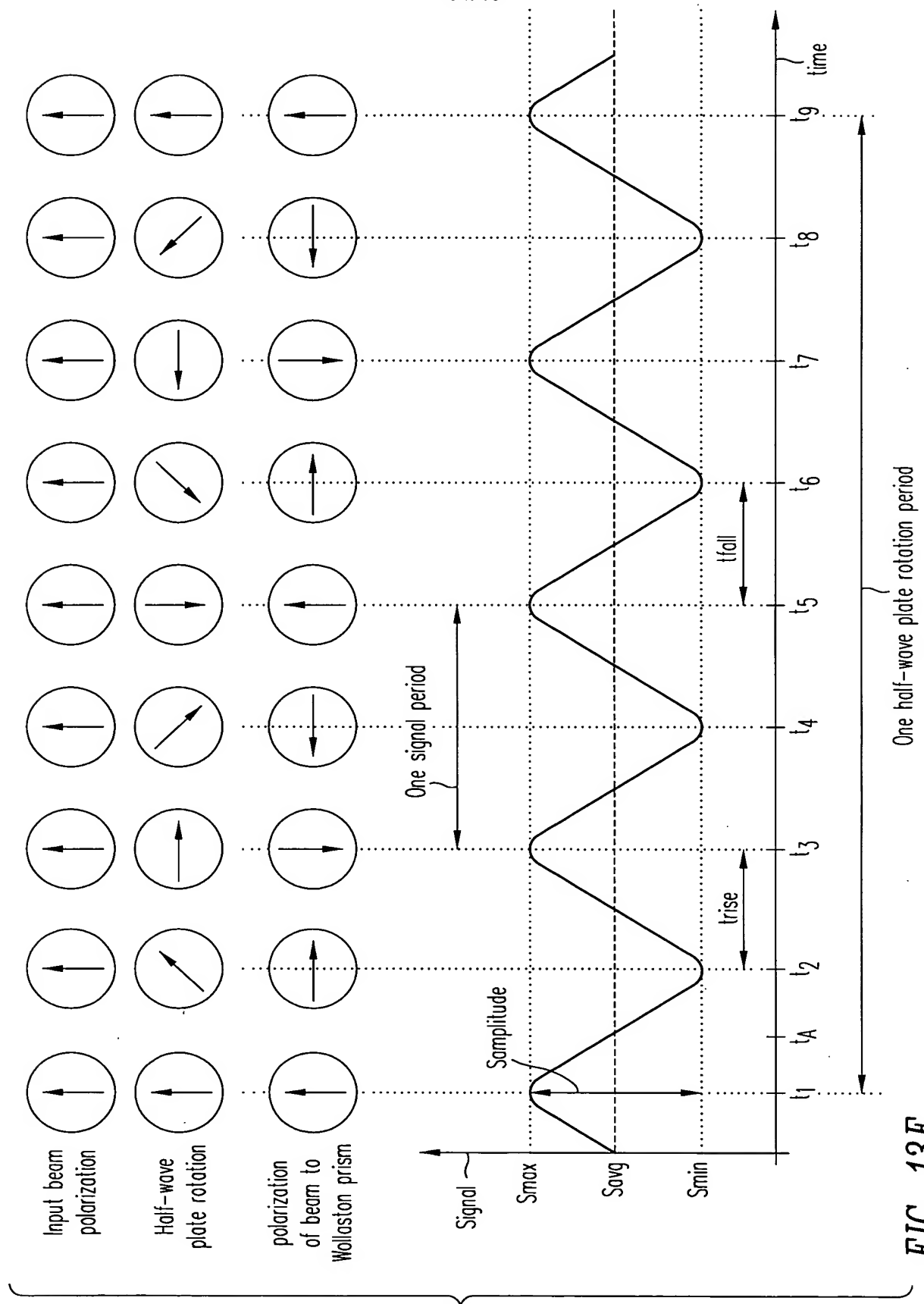


FIG. 13F

FIG. 13G

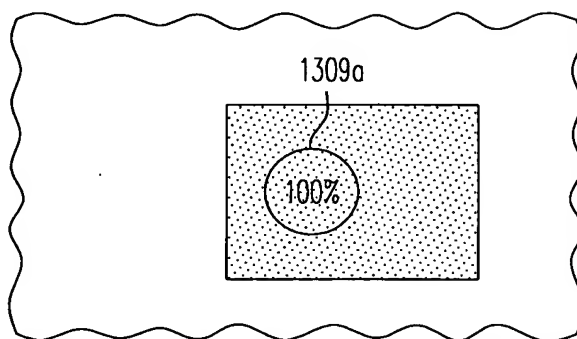


FIG. 13H

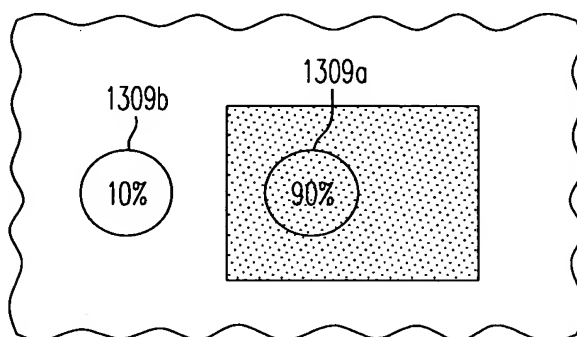


FIG. 13I

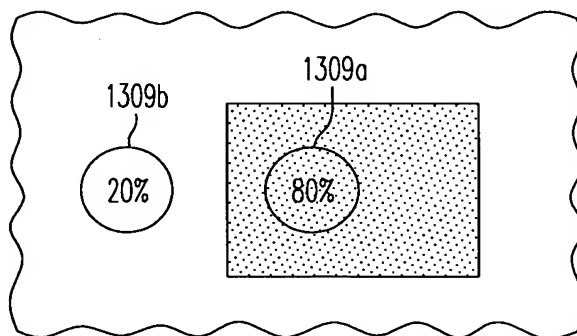


FIG. 13J

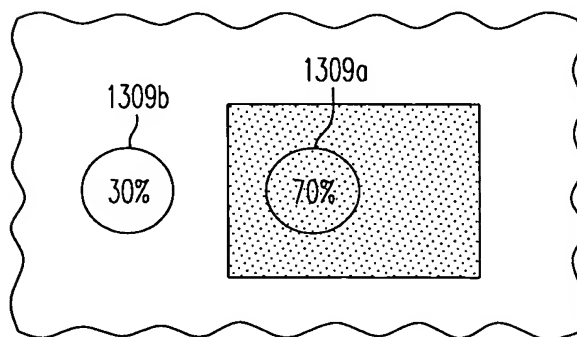


FIG. 13K

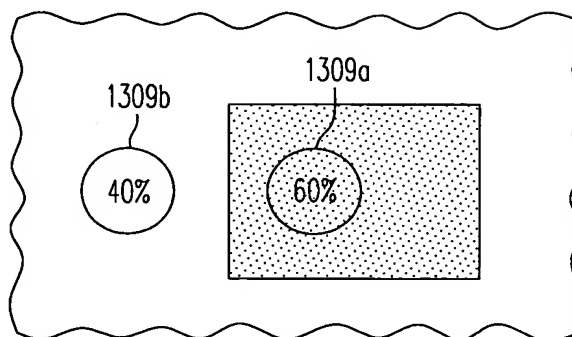


FIG. 13L

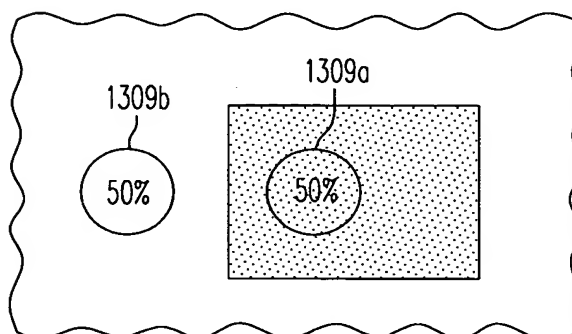
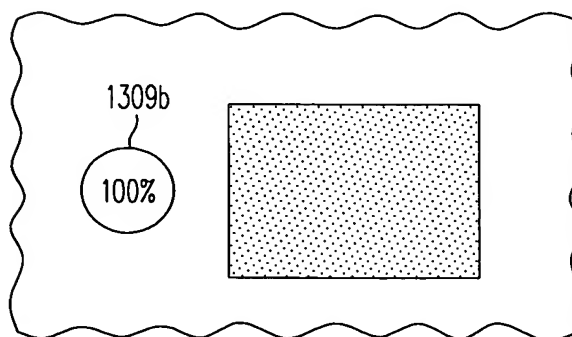


FIG. 13M



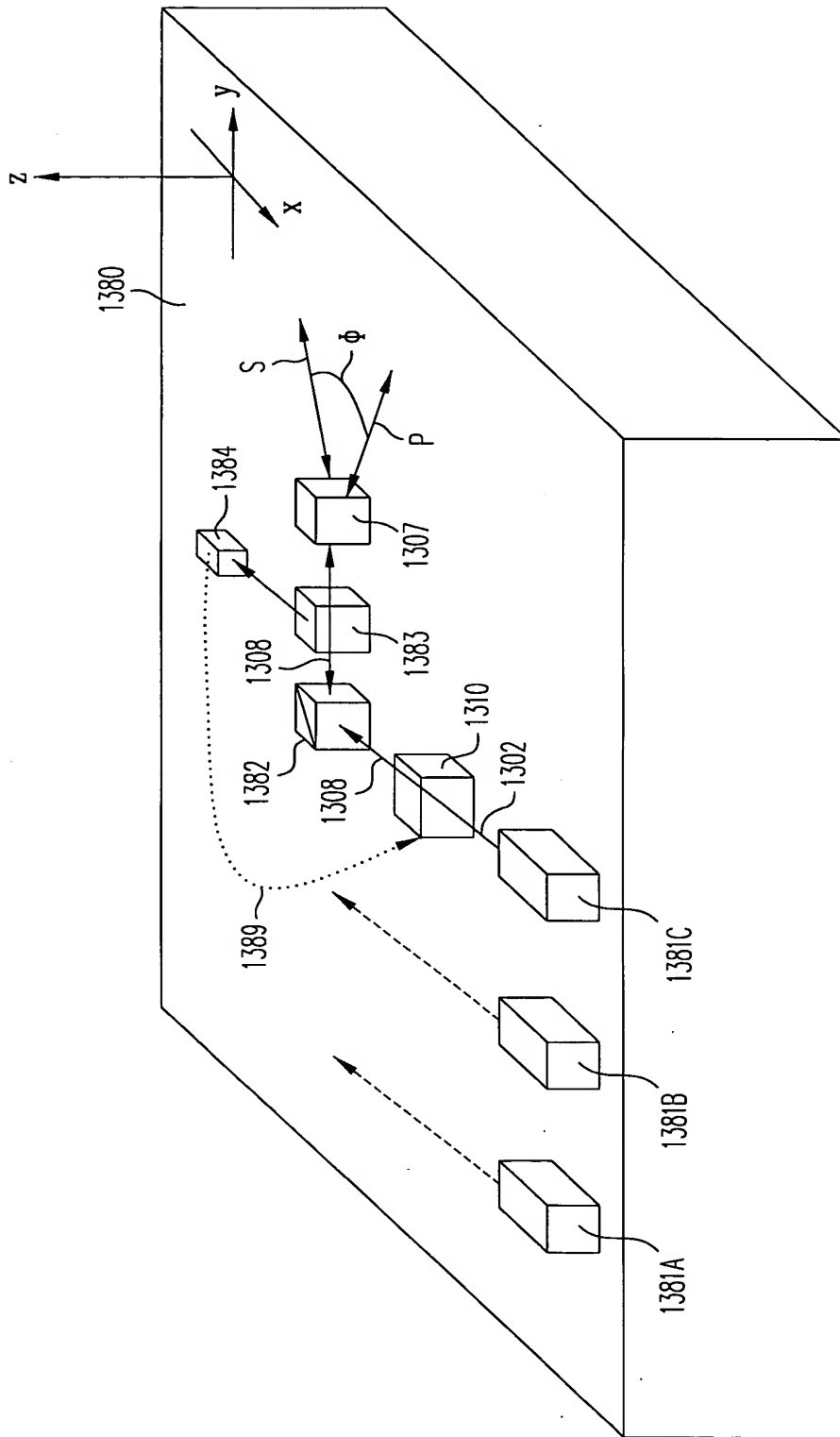
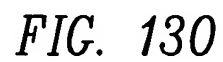


FIG. 13N



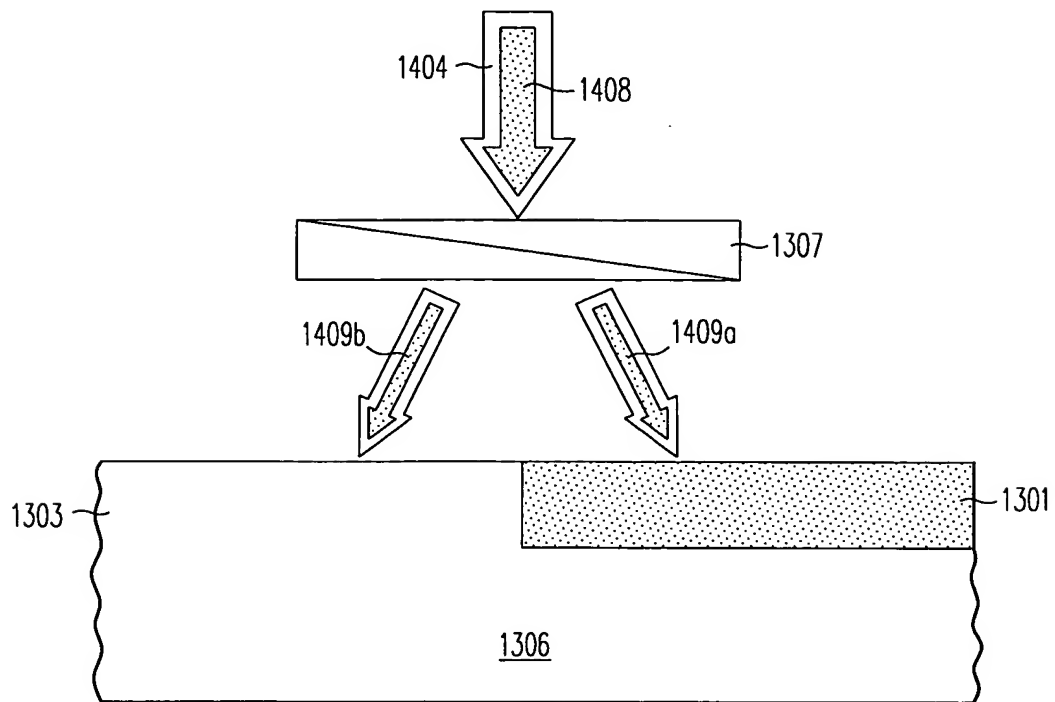


FIG. 14A

FIG. 14C

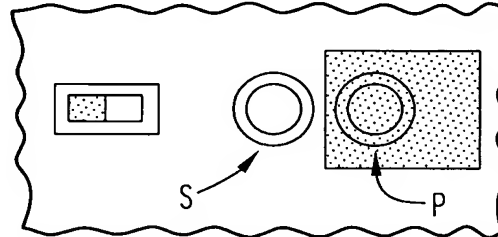


FIG. 14D

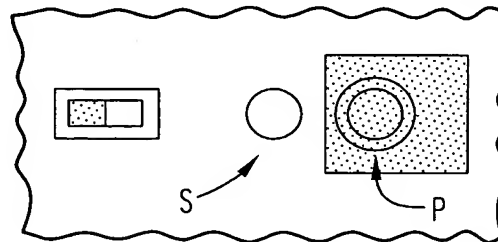
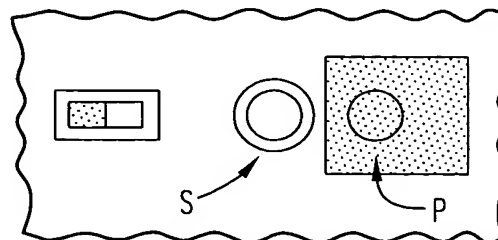


FIG. 14E



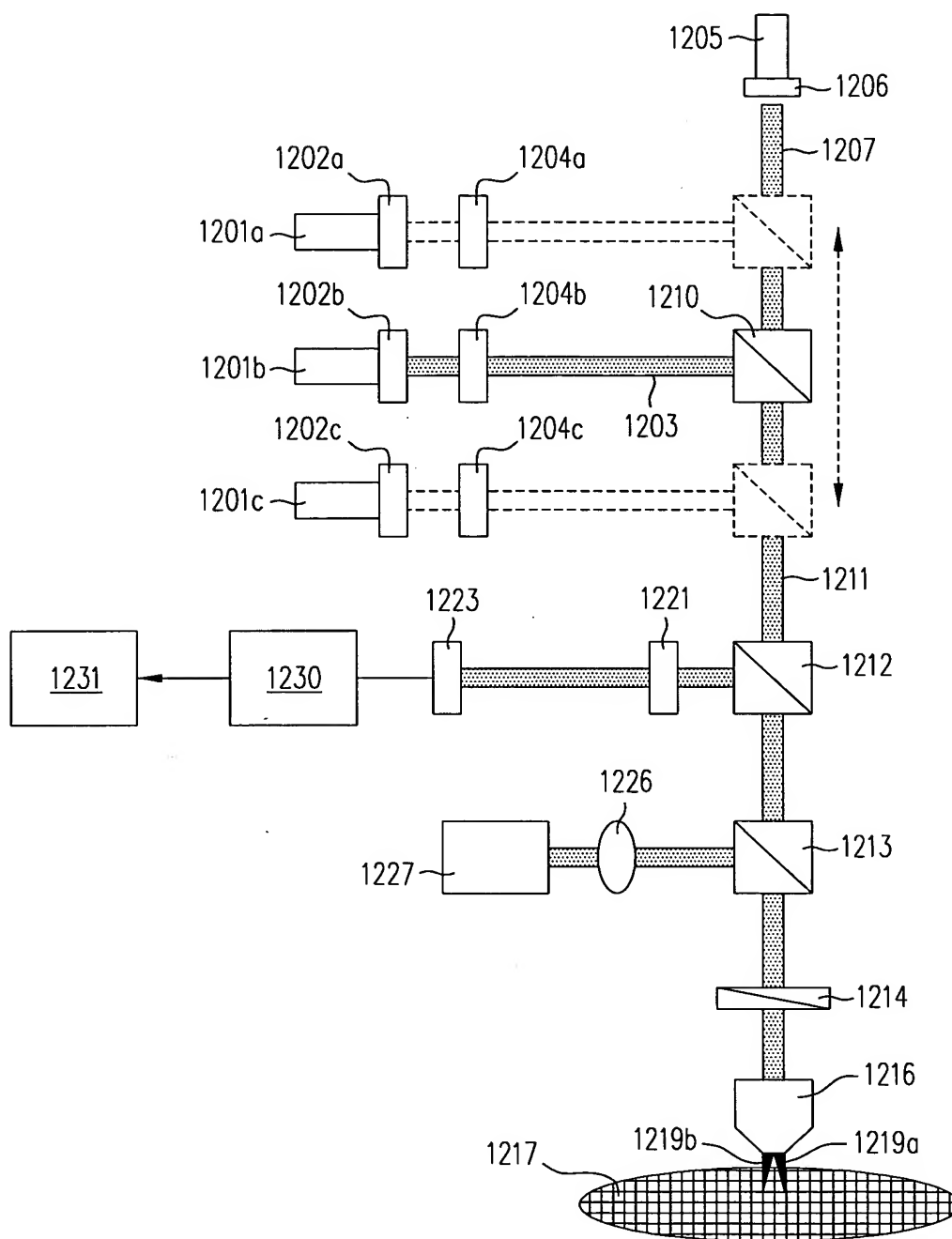


FIG. 14B

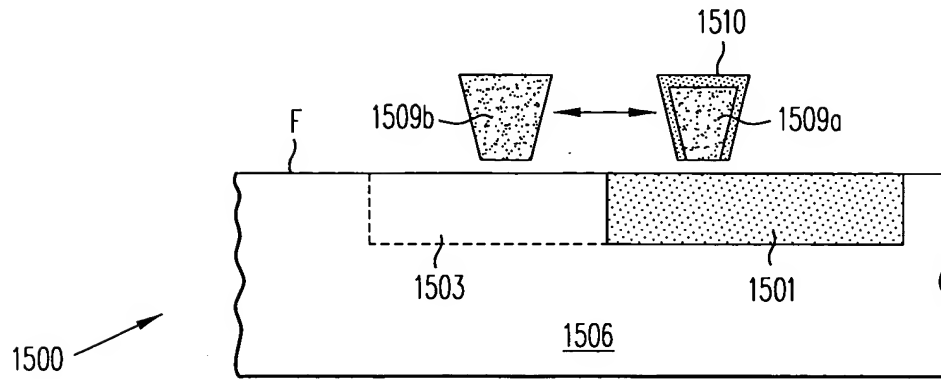


FIG. 15A

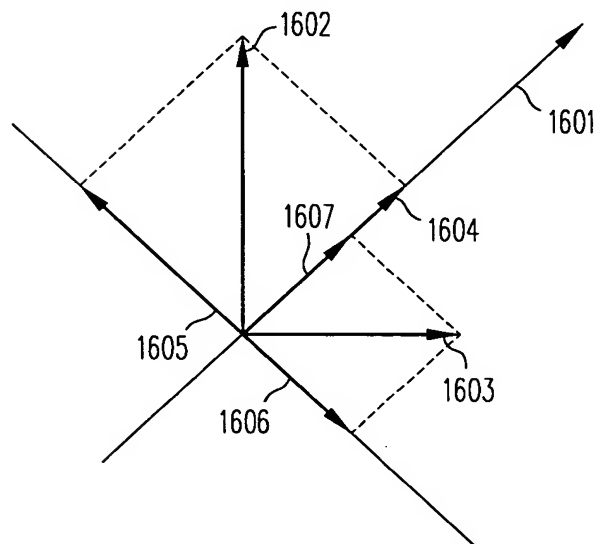


FIG. 16

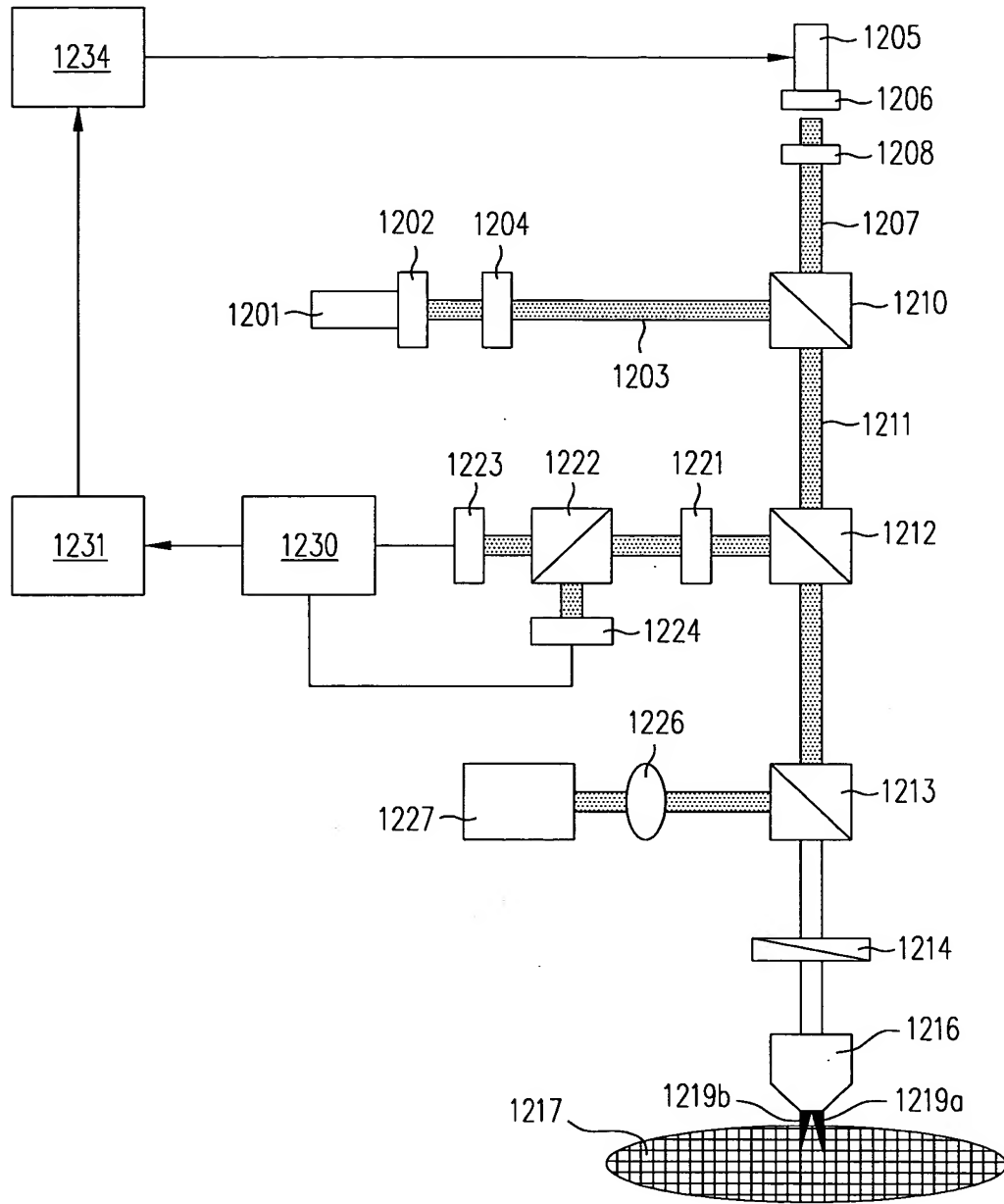


FIG. 15B

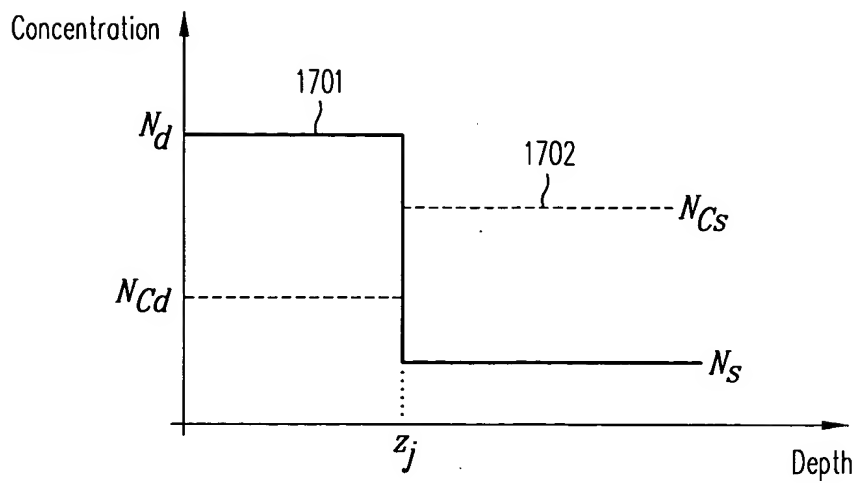


FIG. 17A

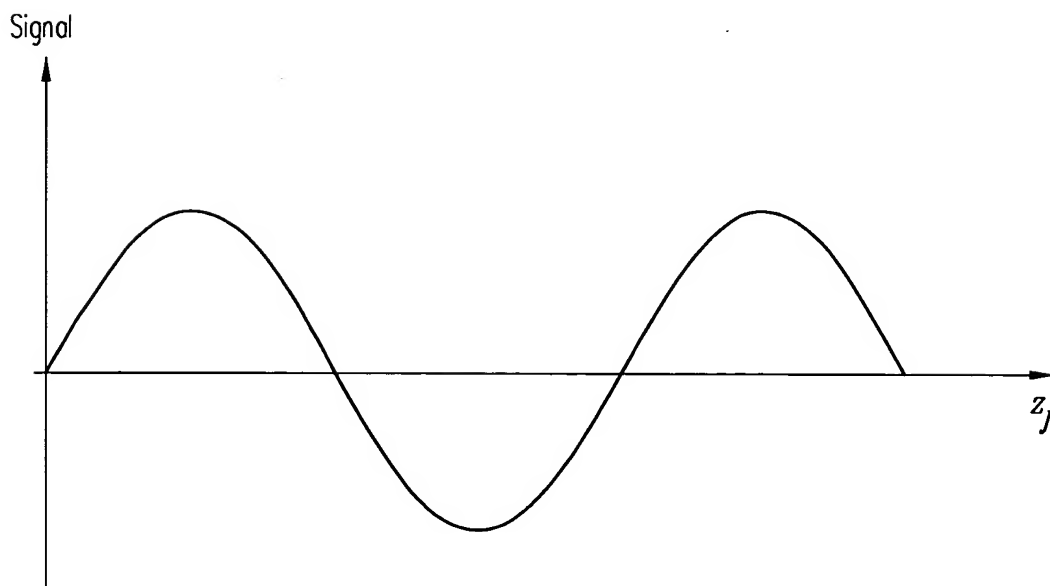


FIG. 17B